

Record of Documents

National Recreation Lakes Study

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Record of Documents
National Recreation Lakes Study Commission

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Subtitle C--Additional Provisions

SEC. 1021. RECREATION LAKES.

16 USC 4601-10e
note.

(a) Findings and Purposes.--The Congress finds that the Federal Government, under the authority of the Reclamation Act and other statutes, has developed manmade lakes and reservoirs that have become a powerful magnet for diverse recreational activities and that such activities contribute to the well-being of families and individuals and the economic viability of local communities. The Congress further finds that in order to further the purposes of the Land and Water Conservation Fund, the President should appoint an advisory commission to review the current and anticipated demand for recreational opportunities at federally-managed manmade lakes and reservoirs through creative partnerships involving Federal, State, and local governments and the private sector and to develop alternatives for enhanced recreational use of such facilities.

(b) Commission.--The Land and Water Conservation Fund Act of 1965 (Public Law 88-578, 78 Stat. 897) is amended by adding at the end the following new section:

President.
Reports.

16 USC 4601-10e.

``Sec. 13. (a) The President shall appoint an advisory commission to review the opportunities for enhanced opportunities for water-based recreation which shall submit a report to the President and to the Committee on Energy and Natural Resources of the Senate and to the Committee on Transportation and Infrastructure and the Committee on Resources of the House of Representatives within one year from the date of enactment of this section.

``(b) The members of the Commission shall include--
 ``(1) the Secretary of the Interior, or his designee;
 ``(2) the Secretary of the Army, or his designee;
 ``(3) the Chairman of the Tennessee Valley Authority, or his designee;
 ``(4) the Secretary of Agriculture, or his designee;
 ``(5) a person nominated by the National Governor's Association; and
 ``(6) four persons familiar with the interests of the recreation and tourism industry, conservation and recreation use, Indian tribes, and local governments, at least one of whom shall be familiar with the economics and financing of recreation related infrastructure.

``(c) The President shall appoint one member to serve as Chairman. Any vacancy on the Commission shall be filled in the same manner as the original appointment. Members of the Commission shall serve without compensation but shall be reimbursed for travel, subsistence, and other necessary expenses incurred by them in the performance of their duties. The Secretary of the Interior shall provide all financial, administrative, and staffing requirements for

the Commission, including office space, furnishings, and equipment. The heads of other Federal agencies are authorized, at the request of the Commission, to provide such information or personnel, to the extent permitted by law and within the limits of available funds, to the Commission as may be useful to accomplish the purposes of this section.

((d) The Commission may hold such hearings, sit and act at such times and places, take such testimony, and receive such evidence as it deems advisable: Provided, That, to the maximum extent possible, the Commission shall use existing data and research. The Commission is authorized to use the United States mail in the same manner and upon the same conditions as other departments and agencies of the United States.

((e) The report shall review the extent of water related recreation at Federal manmade lakes and reservoirs and shall develop alternatives to enhance the opportunities for such use by the public. In developing the report, the Commission shall--

((1) review the extent to which recreation components identified in specific authorizations associated with individual Federal manmade lakes and reservoirs have been accomplished;

((2) evaluate the feasibility of enhancing recreation opportunities at federally-managed lakes and reservoirs under existing statutes;

((3) consider legislative changes that would enhance recreation opportunities consistent with and subject to the achievement of the authorized purposes of Federal water projects; and

((4) make recommendations on alternatives for enhanced recreation opportunities including, but not limited to, the establishment of a National Recreation Lake System under which specific lakes would receive national designation and which would be managed through innovative partnership-based agreements between Federal agencies, State and local units of government, and the private sector.

Any such alternatives shall be consistent with and subject to the authorized purposes for any manmade lakes and reservoirs and shall emphasize private sector initiatives in concert with State and local units of government."

Approved November 12, 1996.

LEGISLATIVE HISTORY--H.R. 4236:

CONGRESSIONAL RECORD, Vol. 142 (1996):

Sept. 28, considered and passed House.

Oct. 3, considered and passed Senate.

NATIONAL RECREATION LAKES STUDY COMMISSION

CHARTER

1. **Official Designation:** National Recreation Lakes Study Commission (Commission).

2. **Authority:** Pursuant to the [Recreation Lakes] Act of 1996, Public Law 104-333 (Act), the President of the United States shall appoint an advisory commission to review the opportunities for enhancing water-based recreation. The Commission shall submit a report to the President and to the Committee on Energy and Natural Resources of the Senate, and the Committee on Transportation and Infrastructure, and the Committee on Resources of the House of Representatives.

3. **Purpose and Duties of the Commission:** The Commission will seek advice from those in the recreation, tourism and conservation communities on alternatives to enhance recreation opportunities at Federal manmade lakes. The Commission will prepare a report of its findings and opportunities for enhanced water-related recreation. In implementing this purpose, the Commission will perform the following duties:

A. prepare a detailed work plan which outlines the steps to be taken in executing the requirements of the duties of the Commission as listed below:

(1) review the extent to which recreation components identified in specific authorizations associated with individual Federal manmade lakes and reservoirs have been accomplished;

(2) evaluate the feasibility of enhancing recreation opportunities at federally-managed lakes and reservoirs under existing statutes;

(3) consider legislative changes that would enhance recreation opportunities consistent with and subject to the achievement of the authorized purposes of Federal water projects;

(4) make recommendations on alternatives for enhanced recreation opportunities including, but not limited to, the establishment of a National Recreation Lake System under which specific lakes would receive national designation and which would be managed through innovative partnership-based agreements between Federal agencies, State and local units of government, and the private sector; and,

(5) ensure that the conservation of watershed and ecosystem values associated with manmade lakes, is a primary objective of the process to plan for recreation uses and construction of facilities.

Any such alternatives shall be consistent with and subject to the authorized purposes for any manmade lake or reservoir and shall emphasize private sector initiatives in concert with State and local units of government.

B. undertake such studies or analyses as may be requested by the Chairman.

4. Membership:

A. The members of the Commission shall include:

(1) the Secretary of the Interior, or his designee;

(2) the Secretary of the Army, or his designee;

(3) the Chairman of the Tennessee Valley Authority, or his designee;

(4) the Secretary of Agriculture, or his designee;

(5) a person nominated by the National Governors Association; and

(6) four persons familiar with the interests of the recreation and tourism industry, conservation and recreation use, Indian tribes, and local governments, at least one of whom shall be familiar with the economics and financing of recreation related infrastructure.

B. The President shall appoint a member to serve as Chairman.

C. Members appointed by the President may be removed by the President at any time.

D. All Commission members shall be voting members. A member may be represented at Commission meetings and other Commission activities by a designated representative. A designated representative may represent only one member. The designated representative may vote for the member if a written proxy for that purpose is provided to the chair.

E. When any appointed member fails to attend two consecutive meetings, the President may deem that member's position on the Commission to have been vacated. Upon such determination, the President will inform the member, in writing, that his or her service in the Commission is terminated.

F. Vacancies occurring by reason of resignation, death, failure to regularly attend Commission meetings, or Presidential removal, will be filled by the President for the balance of the vacating member's term using the same manner as the original appointment.

G. Members of the Commission shall serve without compensation but shall be reimbursed for travel, subsistence, and other necessary expenses incurred by them in the performance of their duties.

5. Powers of the Commission and its Members:

A. In performing the duties outlined in paragraph 3 of this Charter, and consistent with the requirements of FACA, the Commission:

- (1) may hold such hearings, sit and act at such times and places, take such testimony, and receive such evidence as it deems advisable;
- (2) shall use existing data and research to the maximum extent possible;
- (3) is authorized to use the United States mail in the same manner and upon the same conditions as other departments and agencies of the United States; and,
- (4) may establish subcommittees or working groups as it deems necessary.

6. Support Services:

A. The Secretary of the Interior or his designee shall provide all financial, administrative, and staffing requirements for the Commission, including office space, furnishings, and equipment.

B. The heads of other Federal agencies are authorized, at the request of the Commission, to provide such information or personnel, to the extent permitted by law and within the limits of available funds, to the Commission as may be useful to accomplish the purposes of the Act.

7. Funding:

A. Activities of the Commission are estimated not-to-exceed \$1 million annually which includes approximately 8-10 staff years of support.

8. Meetings and Procedures:

A. The Commission will meet at least twice per year and at such other times as determined necessary by the Designated Federal Official to complete activities required by the Act.

B. Designated Federal Official: The Executive Director of the Commission or his or her designee, will serve as the Designated Federal Official (DFO). In accordance with Sec. 10 (f) of FACA and the General Services Administration regulations, the Commission shall not hold meetings except at the call of, or with the advance approval of the DFO (or designee), and notice of any meeting will be published in the Federal Register at least 15 calendar days prior to the meeting.

C. In accordance with FACA, 5 U.S.C. App. 2, detailed minutes of each meeting of the Commission and records of the Commission, including documents made available to or prepared by the Commission, shall be maintained by the Executive Director and kept in the offices housing the Commission.

D. The Commission will not meet, adopt resolutions, take positions on issues, or offer advice or recommendations with less than 51% of its appointed members in attendance.

9. Duration: It is anticipated that the Commission will need to continue for at least 6 months after submission of the report.

10. Expiration of Charter: This charter will expire six months after the report has been sent to the President and Congressional Committees, unless prior to that date the Commission is renewed in accordance with FACA.

/s/ Bruce Babbitt
Secretary of the Interior

Date Signed: October 22, 1998

Date Charter Filed: October 27, 1998

**National Recreation Lakes Study Commission
The Big Picture**

Issue	COE	BOR	NPS	FWS	BLM	BIA	FS	TVA
Department	Army	Interior	Interior	Interior	Interior	Interior	Agriculture	Independent
Mission	Multi Purpose	Multi Purpose	Single Purpose	Multi Purpose	Multi Purpose	Single Purpose	Multi Purpose	Multi Purpose
Recreation Visitation (% total of all agencies)	375 million (20.9%)	80 million (4.5%)	285 million (15.9%)	25 million (1.4%)	61 million (3.4%)	N/A	859 million (47.8%)	112 million (6.2%)
Visits/Acre	32.89	9.41	3.42	0.27	0.23	N/A	4.47	8.38
Number of Lakes (% of total)	537 (30.1%)	288 (16.2%)	82 (4.6%)	138 (7.7%)	2 (0.1%)	152 (8.5%)	268 (15.0%)	54 (3.0%)
[% □1,000 acres water surface]	[56.6%]	[52.0%]	[2.4%]	[0.0%]	[0.0%]	[0.0%]	[1.5%]	[55.6%]
Recreation is provided by:	Agency Other Feds States Counties Cities Private Sector	Agency Other Feds States Counties Cities Irrigation. Districts Private Sector	Agency Private Sector	Agency Private Sector	Agency Private Sector	N/A	Agency Private Sector	Agency Other Feds States Counties Cities Private Sector
Recreation Lake Visitation	375 million	80 million	unknown	unknown	unknown	unknown	unknown	112 million
FY 97 Recreation Budget	\$197,364,000	\$18,772,000	\$271,977,000	\$50,000,000	\$27,772,000	N/A	\$281,000,000	\$702,000

N/A - Not available

Issue	COE	BOR	NPS	FWS	BLM	BIA	FS	TVA
Authorizing Committee Senate	Environment & Public Works	Energy & Natural Resources	Energy & Natural Resources	Environment & Public Works	Energy & Natural Resources	Indian Affairs	Energy & Natural Resources; Agric., Nutrition & Forestry	Environment & Public Works
Subcommittee	Trans & Infrastructure	Water & Power	Nat'l Parks, Historic Preservation & Recreation	Drinking Water, Fisheries & Wildlife	Forests & Public Land Management		Forests & Public Land Management	Trans & Infrastructure
House	Trans & Infrastructure	Resources	Resources	Resources	Resources	Resources	Resources; Agriculture	Trans & Infrastructure
Subcommittee	Water Resources & Environment	Water & Power	National Parks & Public Lands	Fisheries Conservation, Wildlife & Oceans	National Parks & Public Lands		Forests & Forest Health; Forestry, Resource Conservation, & Research	Water Resources & Environment
Appropriating Subcomm. Senate	Energy & Water Development	Energy & Water Development	Interior & Related Agencies	Interior & Related Agencies	Interior & Related Agencies	Interior & Related Agencies	Interior & Related Agencies	Energy & Water Development
House	Energy & Water Development	Energy & Water Development	Interior & Related Agencies	Interior & Related Agencies	Interior & Related Agencies	Interior & Related Agencies	Interior & Related Agencies	Energy & Water Development
Concession issues								
-Possessory Interest	No	No	Yes	No	No	N/A	Yes	No
-Right to Renew	Yes	No	Yes	Yes	Yes	N/A	Yes	Available Option
-Contract issuance	Competitive	Competitive	Competitive	Competitive	Competitive	N/A	Competitive	Competitive
-Franchise Fee	GRFS	3% of gross	Varies	Varies	Varies 3-6%	N/A	GRFS/Bid	3-5% of gross appraised value
-Length of Contract	20-25 years	10-20 years	5-20 years	5 years	10-40 years	N/A	5/20-30 years	19-30 years

N/A - Not available

**Summary of
National Recreation Lakes Study Commission Meeting
July 20 and 21, 1998
Washington, D.C.**

The Commissioners: Seven members of the Commission were present. **Bob Armstrong**, Assistant Secretary for Land and Minerals Management, Department of the Interior; **Dr. Joseph Westphal**, Assistant Secretary of the Army for Civil Works, Department of the Army; **James R. Lyons**, Under Secretary for Natural Resources and the Environment, Department of Agriculture; **Dr. Kathryn Jackson**, Executive Vice President, Resources, Tennessee Valley Authority; **M. Susan Savage**, Mayor of Tulsa, Oklahoma; **Thomas Strickland**, Brownstein, Hyatt, Farber & Strickland, Denver, Colorado; **Richard Davies**, Executive Director of the Arkansas Department of Parks and Tourism.

Swearing In: **Bob Armstrong** administered the oath of office to **Savage, Strickland, and Davies**. (The oath of office is not required for ex-officio members of the Commission, that is those representing members of the Cabinet and the chairman of the Tennessee Valley Authority).

Election of a Vice Chair: **Dr. Westphal** nominated **Richard Davies** to be the Vice Chair of the Commission. **Mr. Strickland** seconded it. Unanimous vote to accept the nomination of Richard Davies as Vice Chair.

Presentations of Initial Findings Reports by Staff: **Bruce Brown**, Deputy Director of the Recreation Lakes Study Commission Staff from the Bureau of Reclamation, presented an overview of the proposed study goals, the study process, the study action plan and study duration. **David Wahus**, Corps of Engineers, presented the definition of a Federally-managed, man-made lake and research that has identified 1,782 lakes managed under the jurisdiction of 11 Federal agencies, including the Bureau of Indian Affairs, the Bureau of Land Management, the Bureau of Reclamation, the Corps of Engineers, the Fish and Wildlife Service, the Forest Service, the National Park Service, the Tennessee Valley Authority, and the Departments of the Army, Navy, and Air Force. **Chris Dlugokenski**, Fish and Wildlife Service, presented research on the economic impact of recreation at Federal lakes, indicating an impact of 44 billion dollars annually and 637,000 jobs. **Jim Gasser**, National Park Service, presented a summary of Federal recreation issues that have been the subject of audits by the General Accounting Office and departmental Inspector Generals and a summary of Congressional oversight and legislative activities dealing with recreation issues. **Chris Dlugokenski** presented research on the future demand for recreation at Federally-managed lakes that indicates that increasing human population and the ease of highway access has led to a rapid increase in recreation use. He reported recreation use is projected to continue to increase dramatically over the next several decades. **Chris Dlugokenski** also presented research about the unique environmental characteristics of man-made lakes as they relate to fisheries management and projected increases in recreation development and use. **Gary Rankel**, Bureau of Indian Affairs, presented

information concerning the involvement of Native American Tribes in recreation at Federal lakes and potential approaches to encouraging more participation from them.

Public Comments: The Commission received comments from eight members of the public, representing a variety of both interests and concerns about the National Recreation Lakes Study: **Derrick Crandall**, American Recreation Coalition; **Laurie Mathews**, Director, Colorado State Parks, representing the National Association of State Park Directors; **Bob Miles**, Resource Director, International Association of Fish and Wildlife Agencies; **Ed Carter**, National Association of State Boating Law Administrators; **Ron Stone**, National Marine Manufacturers Association, and other water-based recreation interests including Marine Operators Association of America and the States Organization for Boating Access; **David E. Gachenbach**, Forever Resorts and Forever Living Products; **David Brown**, America Outdoors; and **Forrest “Gene” Reeves**, Southwestern Power Administration.

ACTIONS TAKEN BY THE COMMISSION:

Adoption of Goals: The Commission discussed and edited the proposed goals and adopted the following goals:

1. Document the current infrastructure, supply and projected demand for recreation at Federal lakes.
2. Identify and promote the environmental values associated with Federal lakes.
3. Evaluate the feasibility of a National Recreation Lakes System and alternatives that promote partnerships to enhance recreation at Federal lakes.
4. Develop legislative and policy recommendations to enhance the quality and quantity of public recreation at Federal lakes while protecting the environment and maintaining consistency with the achievement of project purposes.

Adoption of Findings/Direction for Additional Work:

Task 2 - Identify Lakes and Determine Number to be Studied. The Commissioners discussed whether the Commission staff should gather information for more than the 490 lakes larger than 1,000 acres. In order to make a decision on this at a future meeting, the Commission requested that Bob Miles, Resource Director, International Association of Fish and Wildlife Agencies help the Commission staff identify significant Federally-managed man-made lakes smaller than 1,000 acres in size.

Task 4 - Economic Value of Recreation at Federal Lakes. The Commissioners asked the staff to reexamine the activities of visitors to Federally-managed lakes to verify the Gallup Survey of Tennessee Valley Authority Lake Users (1993) estimates used to develop economic figures in Task 4. The Commissioners also asked the staff to analyze the economic data to ascertain the amount of money realized in recreation benefits for every dollar spent on recreation at Federal lakes.

Task 6 - Review Recreation Compliance and Determine Future Demand. The Commissioners asked that the staff resurvey a statistically significant number of lakes that were surveyed as part of the 1982 “Evaluation of Planning for Fish and Wildlife, Final Report: Adequacy and Predictive Values of Recommendations at Corps [of Engineers] Projects” by the Sport Fishing Institute to determine if they were in compliance with their original authorization and obtain additional information concerning their maintenance backlog, operational costs, and planned construction. The Commission also charged the staff with gathering other existing surveys concerning recreation issues and future demand, to analyze them, and present the findings to the Commission in order to augment the information reported in the draft Findings Report for Task 6.

Task 10 - Planning at Federally-managed Lakes. The Commissioners asked the Commission staff to determine how planning is conducted by the various Federal agencies involved in managing recreation lakes, whether most lakes have management plans, how current they are and whether the various Federal agencies develop similar types of plans.

Task 12 - Analyze the Potential Benefits of a Special Legislative Designation for Federal Lakes. The Commissioners asked the staff to research whether studies of the effects of special legislative designations have been done and, if so, to describe the economic impacts of special designations.

Task 14 - Environmental Impacts of Watershed and Ecosystem Values. The Commissioners asked the staff to determine if the data reported by the States to the Environmental Protection Agency for “The National Water Quality Inventory Report to Congress” specifically examined Federally-managed lakes. The Commissioners also asked that the staff review the recently published “Clean Water Action Plan: Restoring and Protecting America’s Waters” concerning “fishable and swimmable waters” and assure the Findings Report for Task 14 is consistent with it.

Task 17 - Identify Opportunities for Tribal Governments. The Commissioners asked the staff to assure that the 49 tribes involved in managing recreation lakes or providing concession services are added to the NRLSC mailing list and receive a letter, inviting their participation at upcoming meetings. The Commissioners also asked for a case study about tribal issues and involvement at Lake Roosevelt in Washington.

Adoption of the Action Plan: The Commission discussed the proposed study plan and the Issue/Subcommittee approach and decided to use regional workshops to gather technical information and public comment, rather than the Issue/Subcommittee approach.

Decision to Extend the Charter: The Commission discussed the termination date in the Charter and directed the staff to extend it for an additional year, until November 1999.

Decision on Locations and Dates for Subsequent Meetings: The Commission discussed their

schedules and proposed the following locations and dates:

Second Commission Meeting -- September 9-10, 1998 at Lake Mead, Nevada

Third Commission Meeting -- November 9-10, 1998 at Lake Sidney Lanier, Georgia

Fourth Commission Meeting -- January 11-12, 1999 in Washington, D.C.

Summary of
National Recreation Lakes Study Commission Second Meeting
September 9 and 10, 1998
Lake Mead National Recreation Area, Nevada/Arizona

The Commissioners: Six members of the Commission were present: Commission Chair **Bob Armstrong**, Assistant Secretary for Land and Minerals Management, Department of the Interior; **William F. Cronk**, President of Dreyer's Grand Ice Cream, Inc., and Representative of the National Governors' Association; Commission Vice-Chair **Richard Davies**, Executive Director of the Arkansas Department of Parks and Tourism; **Dr. Kathryn Jackson**, Executive Vice President, Resources, Tennessee Valley Authority; **M. Susan Savage**, Mayor of Tulsa, Oklahoma; and **Thomas Strickland**, Brownstein Hyatt Farber & Strickland, Denver, Colorado.

Follow-up to First Commission Meeting: **Bruce Brown**, Deputy Director of the Recreation Lakes Study Commission Staff from the Bureau of Reclamation, presented proposed approaches and follow-up actions taken by Commission staff in response to direction received at the First Commission meeting in July on the following issues:

Commission Goals - Bruce presented redrafted goals for the work of the Commission.

Task 2 - Identify Lakes and Determine Number to be Studied: In response to the Commissioners' request at the first meeting, . Bob Miles, Resource Director, International Association of Fish and Wildlife Agencies was asked to identify significant Federally-managed, man-made lakes smaller than 1,000 acres in size. **Bruce Brown** reported that Miles had contacted State Fish directors and is compiling the information.

Task 4 - Economic Value of Recreation at Federal Lakes: (a) The Commissioners asked the staff to reexamine the activities of visitors to Federal lakes to verify the Gallup Survey of Tennessee Valley Authority Lake Users (1993). (b) The Commissioners also asked the staff to analyze the economic data to ascertain the amount of money realized in recreation benefits for every dollar spent on recreation at Federal lakes. To address (a), **Bruce Brown** reported that Commission staff surveyed 40 lakes to acquire a relative sample size to validate visitation. Early analysis indicates that these lakes have the same activity types as those examined by the Gallup Organization Survey at Tennessee Valley Authority recreation sites, except for wildlife observation and downstream recreation. These two activities are not incorporated into Federal visitation surveys. (The Federal agencies collecting visitation information do not separate flat water and downstream information.) The staff incorporated case study information on the economic importance of downstream recreation into the economic impact report, as recommended by these groups. The economic impact analysis presented at the July 1998 Commission meeting appears valid. For (b), **Bruce Brown** reported that for every dollar in direct expenditures for boating and fishing, \$2.70 is realized in economic impact; for every dollar in direct expenditures on land based recreation at Federal lakes, \$2.00 is realized.

Task 6 - Review Recreation Compliance and Determine Future Demand: (a) The Commissioners had asked that the staff resurvey a statistically significant number of lakes that were surveyed as part of the 1982 “Evaluation of Planning for Fish and Wildlife, Final Report: Adequacy and Predictive Values of Recommendations at Corps [of Engineers] Projects” by the Sport Fishing Institute to determine if they were in compliance with their original authorization and obtain additional information concerning their maintenance backlog, operational costs, and planned construction. (b) The Commission also charged the staff with gathering other existing surveys concerning angling trends. In response to (a), **Bruce Brown** reported that the staff had developed a list of Federal lakes where visitation and facility information was available from the 490 lakes of 1,000 or more surface acres and developed a questionnaire that was sent to 40 managers on August 11, 1998, requesting a response by September 18. In response to (b), the staff reviewed the National Survey of Fishing, Hunting, and Wildlife Associated Recreation conducted at five year intervals since 1980. From 1980 to 1990 the survey indicates a 13.3% increase in recreational angling. The Survey methodology changed in 1995, however, and the numbers generated since then are not comparable with earlier results. The staff recommends that a conservative estimate is that recreation fishing can be expected to increase at a comparable rate to other waterborne recreation of five percent per decade.

Task 14 - Environmental Impacts of Watershed and Ecosystem Values. The Commissioners asked the staff to determine (a) if the data reported by the States to the Environmental Protection Agency for “The National Water Quality Inventory Report to Congress” specifically examined Federal lakes. The Commissioners also asked that the staff review (b) the recently published “Clean Water Action Plan: Restoring and Protecting America’s Waters” concerning “fishable and swimmable waters” and assure that the Findings Report for Task 14 is consistent. **Bruce Brown** reported that there EPA’s water quality inventory covered 40% of the total lakes nationwide and many Federal lakes were part of the inventory. Of the total lakes surveyed, 61% have good water quality; 75% support swimming and boating. Sixty-nine percent support aquatic life; 39% have impaired water quality. In response to (b), **Bob Curtis**, Tennessee Valley Authority, presented the Commissioners with an outline that broadens the examination of environmental concerns associated with increased recreation at Federal lakes for approval. The outline emphasizes protection of watershed and ecosystem values.

Task 17 - Identify Opportunities for Tribal Governments. **Bruce Brown** reported that the 49 tribes involved in managing recreation lakes or providing concession services have been added to the NRLSC mailing list and received a letter, inviting their participation at upcoming meetings.

Extension of the Commission Charter: **Bruce Brown** reported that the paperwork would be started in October as required by law.

Commission Budget: **Bruce Brown** described how the NRLSC is funded through the Office of the Secretary of the Department of the Interior.

Workshop Strategy: **Bruce Brown** reported that the staff had developed a workshop format for the Commissioners to use when they held interest group and workshop meetings to gather technical information and public comment. He reported that Vice-Chairman Davies held a workshop as part of the Bass Anglers Sportsman Society meeting on August 8 and that Commissioner Strickland held an environmental group workshop on September 2 and that the workshop strategy was successful. He also said the staff has compiled a list of interest group meetings for the Commissioners to attend and the list would be discussed on the next day.

Agency Surveys: **Bruce Brown** reported that the staff has identified a number of visitor/user surveys that Federal agencies conduct and they would be made available to the Commission.

Advertising: **Bruce Brown** reported that the staff drafted questions for the Office of the Solicitor to advise the Commissioners on the ability of the Commission and the Federal government to accept and/or purchase advertising and marketing services. Generally, the Office of the Solicitor advised that the Commission will be able to accept gratuitous services. However, the ability to purchase advertising in the mass media or to allow an organization to place its logo (or receive other recognition) in exchange for printing services will be dependent on the authorities underlying such proposals and would need to be reviewed on a case-by-case basis.

Federal Recreation Lakes Overview and Agency Presentations: The Commission received presentations from seven Federal agencies about their recreation programs, including information on their differing authorities, agency missions, annual visitation, funding, and concession policies. The speakers were: **Dr. Kathryn Jackson**, Executive Vice President, Resources, Tennessee Valley Authority; **Alan O'Neill**, Superintendent of Lake Mead National Recreation Area, National Park Service; **Darrell Lewis**, U.S. Army Corps of Engineers; **Rodger Schmitt**, Bureau of Land Management; **Doug Staller**, Fish and Wildlife Service; **Eluid Martinez**, Commissioner, Bureau of Reclamation; **Richard Paterson**, Acting Director of Recreation, Forest Service.

Public Comments: The Commission received comments from eight members of the public, representing a variety of both interests and concerns about the National Recreation Lakes Study: **Richard A. Swan**, Colville Confederated Tribes; **Barbara DelGrosso**, Southwestern Power Resources Association; **James W. Sherwood**, Southwestern Power Administration; **Paul Chandler**, Overton Beach Marina; **Douglas Nielson**, Nevada Division of Wildlife, National Association of State Boating Law Administrators; **David E. Gackenback**, Forever Resorts; **Milton Rasmussen**, Lake Mead Kayak Club; and **Dave Beloud**, Down River Outfitters.

Presentations of Research Initial Findings Reports by Staff: **Dr. Glenn E. Haas**, College of Natural Resources, Colorado State University, Forest Collins, Co., presented a report, entitled, "The Impacts from Increased Recreation Use on the Non-Recreational Purposes and Benefits of Federally-Managed, Man-made Lakes/Reservoirs;" **David Wahus**, Commission staff from the U.S. Army Corps of Engineers presented the findings from a workshop to identify barriers to private sector development at Federally-managed, man-made lakes and Reservoirs (Task 11);

Bill Wood, Commission staff and District Ranger, Holy Cross Ranger District of the White River National Forest, Forest Service, presented a findings paper on determining the best methods for establishing social, environmental, and physical carrying capacities at Federally-managed reservoirs and lakes (Task 7); **Jim Gasser**, Commission staff from National Park Service presented a findings paper on how the quantity and quality of enhanced recreation opportunities might be measured by the Federal agencies (Task 15); and **Mel Berg**, Commission staff from the Bureau of Land Management presented a findings paper on the kinds of recreation management planning done by Federal agencies.

Presentation of Invited Papers: Derrick Crandall, American Recreation Coalition, and **Bill Anderson**, President of Westrec Marinas, Inc, presented the Roper Starch Survey Report, entitled, “Outdoor Recreation in America 1998.”

ACTIONS TAKEN BY THE COMMISSION:

Adoption of Goals: The Commission adopted the proposed goals while reserving the right to amend them.

Task 4 - Economics: The Commission accepted the findings report.

Task 6 - Demand: The Commission accepted the findings report.

Task 14 - Clean Water and EPA Inventory: The Commission agreed to review a redraft of the outline provided by Bob Curtis, TVA, and respond to it in writing before the next meeting at Lake Sidney, Lanier, Georgia.

Workshop Strategy: The Commission accepted the proposed strategy and asked the staff to add additional questions and flexibility to the workshop process. The Commission also agreed to attend interest group workshops identified by staff, to hold regional workshops, and to notify Bruce Brown of their availability for such meetings by September 12.

Task 16 - Recreation Effects on Other Uses: The Commission deferred on acceptance of this findings report until more discussion could take place.

Task 7 - Carrying Capacity: The Commission deferred on acceptance of this findings report until more discussion could take place.

Task 11 - Barriers to Partnerships: The Commission accepted the findings report and directed the staff to develop more information about the proposed recommendations for the next meeting.

Task 15 - Measuring Quantity and Quality of Enhanced Recreation Opportunities: The Commissioners noted that if the seven agencies come together and talk about water-based recreation performance measures, it wouldn't take much more effort to look at all recreation

management or recreation measures. The staff will develop a recommendation on the use of “man-made lake recreation” vs “enhanced recreation” vs “water enhanced recreation.”

Task 10 - Federal Lake Recreation Management Plans: The Commission accepted the findings report and stated that recreation should receive “due consideration” in all management planning.

Discussion of invitations and agenda items for the Third Commission Meeting: The Commission agreed to invite the North American Lake Management Society to make a presentation and the Corps of Engineers to discuss the Recreation Initiative at the November meeting. That meeting is scheduled for November 9-10, 1998, at Lake Sidney Lanier, Georgia.

Adjournment: The Commission meeting adjourned at 3:08pm.

**Summary of
National Recreation Lakes Study Commission Third Meeting
November 9 and 10, 1998
Lake Sidney Lanier, Georgia**

THE COMMISSIONERS: Eight members of the Commission were present: Commission Chair **Bob Armstrong**, former Assistant Secretary for Land and Minerals Management, Department of the Interior; **William F. Cronk**, President of Dreyer's Grand Ice Cream, Inc., and Representative of the National Governors' Association; Commission Vice-Chair **Richard Davies**, Executive Director of the Arkansas Department of Parks and Tourism; **Dr. Kathryn Jackson**, Executive Vice President, Resources, Tennessee Valley Authority; **M. Susan Savage**, Mayor of Tulsa, Oklahoma; **Thomas Strickland**, Brownstein Hyatt Farber & Strickland, Denver, Colorado; **James R. Lyons**, Under Secretary of Agriculture - Natural Resources and the Environment; and **Joseph W. Westphal**, Assistant Secretary of the Army for Civil Works.

FOLLOW-UP TO THE SECOND COMMISSION MEETING: **Bruce Brown**, Deputy Director of the Recreation Lakes Study Commission Staff from the Bureau of Reclamation, presented proposed approaches and follow-up actions taken by Commission staff in response to direction received at the Second Commission meeting in July on the following issues:

Task 2 - Identify Lakes and Determine Number to be Studied: States were asked to provide a list of Federal lakes smaller than 1,000 surface acres that provide significant recreation. It appears from their responses, that all Federal lakes are important for recreation and should be included in the deliberations of the Commission.

Task 16 - The Affect of Recreation on Other Water Uses: At the September Commission meeting, the staff was directed to obtain independent reviews on the report entitled, "The Impacts from Increased Recreation Use on the Non-Recreational Purpose and Benefits of Federally-Managed, Man-made Lakes/Reservoirs" by Dr. Glenn E. Haas. Thirteen of the 250 organizations, who were asked to review and comment on the report, responded.

Task 7 - Carrying Capacity: The findings report was modified in response to the comments made at the September Commission meeting.

Consistent Language Recommendation: At the September Commission meeting, there was a discussion about how to best describe the types of recreation available at Federal lakes. In response to Commission direction, the staff researched the issue and recommended the use the of term "water-related recreation."

Legislative Update: Summaries were provided on recently enacted legislation that affects the provision of recreation on Federal lakes. They were the National Parks Omnibus Management Act of 1998 (PL 105-391.) and the Omnibus Appropriation Act of 1999 (PL 105-

277).

Task 3 - Communications: The Commissioners were briefed on the communication activities initiated by the staff before and after each Commission meeting.

Interactive Webpage Project: In response to the Commissioners' request, the NRLS webpage has been modified so the public can communicate electronically with the Commission.

Task 6 - Review Recreation Compliance and Determine Future Demand: In response to the Commissioners' request, Federal lakes were resurveyed to determine if they were in compliance with their original authorization and for additional information regarding maintenance backlog, operational costs, and planned construction. Based on the survey, the total estimated recreation maintenance backlog is in excess of \$800 million.

Extension of the Commission Charter: **Bruce Brown** reported that the Charter has been extended to expire six months following the completion of the Commission's report.

Reports from Commissioner's Public Workshops: The Commissioners reported on public workshops held in Chicago, Illinois on September 30, 1998; Denver, Colorado on October 14, 1998; Sacramento, California on October 21, 1998; Tulsa, Oklahoma on October 26, 1998; and Little Rock, Arkansas on October 28, 1998.

PRESENTATION OF INVITED PAPERS:

Dr. Kathryn Jackson, Executive Vice President, Resources, Tennessee Valley Authority made a presentation on **Integrated Resource Management** on Federal lakes.

Darrell Lewis, Chief, Natural Resources Management Branch, Headquarters U.S. Army Corps of Engineers made a presentation on the **Recreation Partnership Initiative**, a new Corps of Engineers program.

Lisa Conley, Co-Chair of the Government Affairs Committee of the North American Lakes Management Society, made a presentation titled, "**Is the Clean Lakes Program Drying Up.**"

Fran Mainella, President, National Association of State Park Directors and Director, Florida Division of Recreation and Parks gave a presentation on **Federal/State Partnerships**.

Laurie Mathews, Director, Colorado Division of Parks and Outdoor Recreation and **Darrell Welch**, Outdoor Recreation Planner, Bureau of Reclamation, jointly presented a **Case Study** on a State of Colorado/Bureau of Reclamation cost sharing agreement.

Public Comments: The Commission received comments from nineteen members of the public,

representing a variety of interests and concerns about the National Recreation Lakes Study: **Barbara DelGrosso**, Southwestern Power Resources Association; **Bethel J. Herrold**, Southwestern Power Administration; **Anthony Rabern**, Georgia Department of Natural Resources; **Betsy Oilman**, National Marine Manufacturers Association; **Harry F. Ebner**, Lake Lanier resident; **David A. Jackson**, Atlanta Water Ski Club/AWSA; **David Brown**, America Outdoors; **Elizabeth Johns**, Nautahala Outdoor Center; **Ron Seder**, Lake Lanier Association; **Richard Bell**, Lake Nottely Improvement Association; **Dan Simpson**, Lake Lanier Association; **Jackie Joseph**, Lake Lanier Association; **Lance Luke**, Ocoee River Outfitters Association; **Bill Anderson**, Westrec Marinas; **Greg Mckenna**, Public Interest; **Rob James**, author and consultant (sailing facilities); **Judy James**, Lake Lanier resident; **Hank Davis**, Lake Lanier Association; and **Moore Hallmark**, Congressman Bob Barr’s office.

Presentations of Research Initial Findings Reports by Staff: **Mel Berg**, Commission staff from the Bureau of Land Management, presented the findings on the Feasibility of a National Recreation Lake System (Task 18); **Kate Marx**, Commission staff from the Tennessee Valley Authority, presented a report, which was requested by the Commission at the September Commission meeting, on a proposed Barrier Reduction Demonstration Project (Task 11); **Dave Wahus**, Commission staff from the U.S. Army Corps of Engineers presented the findings on Recreation Revenues (Tasks 8 & 9); and **Bruce Brown**, presented the findings on Commercial Recreation Activities (Task 13).

ACTIONS TAKEN BY THE COMMISSION:

Task 2 - Significant Smaller Lakes: The Commission accepted the follow-up report.

Task 7 - Carrying Capacity: The Commission accepted the modified findings report.

Recreation Terminology: The Commission accepted the staff recommendation to use the term “water-related recreation.”

Task 6 - Recreation Demand: The Commission accepted the modified findings report.

Public Workshops: The Commission accepted the results of the workshops conducted by the Commissioners and staff.

Task 8&9 - Recreation Revenues: The Commission accepted the findings report subject to the correction of the data on revenues collected by States.

Task 11- Barriers Reduction Demonstration Project: The Commission deferred the acceptance of this report until the next Commission meeting.

Task 13 - Commercial Recreation Activities: The Commission accepted the findings report.

Proposed Outline for the Commission Report: The Commissioners proposed the following outline for the Commission's report.

I. Preamble (The reader needs to understand the background and why this study is being conducted)

II. Statement of Goals. Include:

- The authorization for the study.
- The philosophy that increasing the quality and quantity of recreation facilities can lower the cost of providing recreation. This will provide a win-win-win situation.
- Recreation demand is increasing.
- Conflicting water uses.
- Broad definition of recreation.
- Broad spectrum of recreation

III. Guiding Principles Identified

- Clean water
- Local manager authority (gather/communicate more often)
- Community involvement
- Watershed planning
- Partnerships
- Fee retention
- Adequate resources
- Raising the priority of recreation
- Balancing demands of competing uses
- Economic impact of recreation

IV. An Action Plan based on the guiding principles

V. Recommendations based on the findings

- Include who should have the action on each recommendation
- Recognize the seven Federal agencies, the number of inconsistencies in managing Federal lakes and the need to work together.

Proposed process for stakeholder input to the draft Commission report and

recommendations: In order to obtain a broad response to the draft Commission report, the Commissioners directed that the staff develop a marketing/action plan to show how the Commissioners and staff will market the report. A number of ways should be considered to include the use of mailings, the NRLS web page, written notices to all who attended a Commission meeting and/or a workshop, presentations at national meetings and contacting the heads of agencies/bureaus which manage Federal lakes.

Teleconferences: The staff suggested and the Commissioners approved periodic informational teleconferences between the staff and Commissioners.

Federal vs. Federal Partnering/Cost Sharing: This issue needs to be researched. Cost sharing with Wallop-Breaux funds, Land and Water Conservation Fund Act funds and T-21 funds need to be addressed.

Recreation as a Mission: The Commissioners asked the staff to develop a list of options on how recreation can be added to the mission of a Federal lake.

Workshops: Commissioner Westphal proposed, and the Commissioners agreed, to conduct a workshop in late January or early February 1999, in which the draft Commission report would be presented and comments received. Will consider inviting lake managers to the workshop or conducting a workshop with just lake managers from all the Federal land management agencies.

The Fourth Commission Meeting: The next Commission meeting is scheduled for January 11 - 12, 1999 in Washington, D.C.

Adjournment: The Commission meeting adjourned at 2:30 pm.

**Summary of
National Recreation Lakes Study Commission Fourth Meeting
January 11 and 12, 1999
National Guard Association Auditorium, Washington, D.C.**

THE COMMISSIONERS: Seven members of the Commission were present: Commission Chair **Bob Armstrong**, former Assistant Secretary for Land and Minerals Management, Department of the Interior; **William F. Cronk**, President of Dreyer's Grand Ice Cream, Inc., and Representative of the National Governors' Association; Commission Vice-Chair **Richard Davies**, Executive Director of the Arkansas Department of Parks and Tourism; **Dr. Kathryn Jackson**, Executive Vice President, Resources, Tennessee Valley Authority; **M. Susan Savage**, Mayor of Tulsa, Oklahoma; **James R. Lyons**, Under Secretary of Agriculture - Natural Resources and the Environment; and **Joseph W. Westphal**, Assistant Secretary of the Army for Civil Works.

FOLLOW-UP TO THE THIRD COMMISSION MEETING: **Bruce Brown**, Deputy Director of the National Recreation Lakes Study Commission Staff from the Bureau of Reclamation, presented follow-up actions taken by Commission staff in response to direction received at the Third Commission meeting in November on the following issues:

Recreation -- an Authorized Purpose: All Federal lakes authorized by Congress prior to 1965 are assumed to have recreation as a purpose regardless of whether recreation was specifically addressed. All water resource projects formulated after 1965 must specifically authorize recreation and allocate a portion of the cost of the project to recreation in order for recreation to be a project purpose.

National Outdoor Recreation Foundation: A summary was presented on the four national foundations currently in existence. The **National Park Foundation** and the **National Forest Foundation** are agency specific. The **National Fish and Wildlife Foundation** and the **National Environmental Education and Training Foundation** are able to support activities in line with their charter on lands and waters managed by any Federal agency.

Non-inclusion of Section 314 of the Clean Water Act in the Clean Water Action Plan: Section 314 was not included in the 1998 Clean Water Action Plan because the continued position of the Environmental Protection Agency is that it is not necessary to specifically fund the Clean Lakes Program in order to recognize the importance of lakes and reservoirs as key elements of the aquatic ecosystem. More funds are available for clean lakes under Section 319 than was ever appropriated under Section 314.

Matching Funds Requirements: A legal opinion was presented that showed the Secretary of the Interior has no authority to waive State matching fund requirements in various conservation or resource management projects when such projects are conducted on Federal

lands or are primarily of a Federal benefit.

Summary of NRLS Workshops: Eight workshops were held across the country to seek opinion and comment from citizens and special interest groups. Participants' comments about Federal lake recreation were more similar than they were different. At each meeting there were requests and recommendations about specific sites, often about competing water use conflicts and public safety. In the majority of comments advocating recreation enhancement, participants called for greater emphasis on recreation as an authorized operating purpose of the project and the Federal investment that would reflect that shift in purpose. In the majority of comments advocating environmental protection, participants called for watershed-wide planning, water quality improvement, and wildlife habitat protection. There were also participants who raised concerns about recreation enhancements by private developers being used as a means for the private sector to secure public land for their private use. Many were against the conveyance of public land or facilities to private operators for any reason and that there should be no more loss of undeveloped public land or other Federal assets.

Presentation of Findings Reports by Staff: **Bob Curtis**, Commission Staff from the Tennessee Valley Authority, presented the findings report on the Protection of Watershed and Ecosystem Values; **Bruce Brown**, Deputy Director and Commission Staff from the Bureau of Reclamation, presented the findings report on Designation Considerations for a National Recreation Lakes System.

Presentation of the Draft Recommendations: **Jana Prewit**, Executive Director, presented an overview of the latest draft recommendations for consideration by the Commission.

Public Comments: The Commission received comments from eleven members of the public, representing a variety of interests and concerns about the National Recreation Lakes Study: **Jim Thaxton**, Professional Paddlesports Association; **John Wagner**, American Water Ski Association; **David Kannady**, Southwestern Power Administration; **Ted Coombes**, Southwestern Power Resources Association; **Derrick Crandall**, American Recreation Coalition; **Aubrey King**, Albertine Enterprises; **Darrell Lewis**, U.S. Army Corps of Engineers; **Robert Lynch**, Colorado River Energy Distributer's Association; **Jennifer Elling**, Colorado State Parks; **Barry Tindall**, National Recreation and Parks Association; **Bob Miles**, International Association of Fish and Wildlife Agencies. **Senator Frank Murkowski**, Chairman of the Energy and Natural Resources Committee, also spoke to the Commission. He was accompanied by **Jim O'Toole**, **Kelly Johnson** and **David Garmen**, Staff, Senate Committee on Energy and Natural Resources.

ACTIONS TAKEN BY THE COMMISSION:

National Recreation Foundations: Indicate in the presentation document whether start-up funds were appropriated for the existing foundations. Also address the pros and cons of foundations.

Task 14 - Protection of Watershed and Ecosystem Values: Add a discussion on lake fisheries and downstream relationships.

Draft Report - Preamble: Address the following in the preamble -- the challenges and opportunities associated with lake recreation; relationships between resources and communities; why is the Commission conducting this study; the complexities of the system; the tremendous potential of Federal lakes; the number of people within 50 miles of a lake; the magnetic draw of water; the uses of water are not mutually exclusive; and recognize all water uses as legitimate.

Draft Report - Background: Provide parallel data for each agency to the extent possible.

Draft Report - Recommendations:

Recommendation #1: (Fee Demo) Accepted with modifications. Reorder the recommendations and do not lead off with this one. Include concession and permit fees in the Fee Demo Program. If the Fee Demo Program works, recommend that it be made permanent.

Recommendation #2: (Allow BOR and COE to cost share) Accepted with modifications. The primary emphasis should be on rehabilitation. Give the BOR and COE the same flexibility as the other agencies. Add the repeal of cost sharing with states for the rehabilitation of recreation which is now required by P.L. 89-72.

Recommendation #3: (Maintenance Backlog) This recommendation was not accepted for inclusion in the report. Need to survey to determine what needs fixing based on customer needs, not just because the facility exits. Facility may have outlived its usefulness and no longer be in demand.

Recommendation #4: (Wallop/Breaux for Tribes) Accepted. This should remain as a stand alone recommendation.

Recommendation #5: (Restore funding for Clean Lakes Program) Accepted with modifications. Highlight the importance of this so it is crystal clear. Replace “Restore funding” with “Provide funding.” Encourage no degradation of the quality of water. Remove the reference to Section 314 and recommend funding for clean lakes.

Recommendation #6: (Leadership Council) Accepted.

Recommendation #7: (Commercial Activities) Accepted with minor modifications. Existing concessionaires who are doing a good job should be given a preference when rebidding for a new term. The concession policies should be more consistent at Federal lakes of all of the agencies.

Recommendation #8: (Reinvention Laboratory) Accepted.

Recommendation #9: (National Lakes System) Accepted with modifications. Highlight the importance of the resources and the value of a system. Try it with pilot projects. Need incentives and must identify a need.

Recommendation #10: (Performance Measures) Accepted with modifications.

Recommendation #11: (Inter/intra-agency development assignments) Accepted.

Recommendation #12: (Recreation Fisheries Conservation Plan) Accepted.

Recommendation #13: (Involvement of special interests) Accepted with modifications. Users of lakes and special interest groups need to be given the opportunity to participate in the planning for those lakes.

Recommendation #14: (Federal activities inventory reform) Accepted with modifications. This should be part of the assessment process. Should be looking for way to provide “better service at a lower cost” or “vastly improved service at a slightly higher cost.”

Recommendation #15: (Federal lake research team) Accepted with modifications. Need a broader research recommendation or specific things that need to be done and place it under the leadership council. Encourage the investment in recreation research to include the willingness to cost share with public and private partners under the auspices of the leadership council.

Recommendation #16: (Waive cost sharing) Approved with modification. Rewrite to state when Wallop/Breaux is reauthorized, these changes need to be made.

The Fifth Commission Meeting: The next Commission meeting is scheduled for March 2&3, 1999 in Washington, D.C. in the South Interior Building auditorium.

**Summary of
National Recreation Lakes Study Commission Fifth Meeting
March 2 and 3, 1999
South Interior Building Auditorium, Washington, D.C.**

THE COMMISSIONERS: Six members of the Commission were present: Commission Chair **Bob Armstrong**, former Assistant Secretary for Land and Minerals Management, Department of the Interior; **William F. Cronk**, President of Dreyer's Grand Ice Cream, Inc., and Representative of the National Governors' Association; Commission Vice-Chair **Richard Davies**, Executive Director of the Arkansas Department of Parks and Tourism; **Dr. Kathryn Jackson**, Executive Vice President, Resources, Tennessee Valley Authority; **James R. Lyons**, Under Secretary of Agriculture - Natural Resources and the Environment; and **Joseph W. Westphal**, Assistant Secretary of the Army for Civil Works.

FOLLOW-UP TO THE FOURTH COMMISSION MEETING: **Bruce Brown**, Deputy Director of the National Recreation Lakes Study Commission Staff from the Bureau of Reclamation, presented FOLLOW UP actions taken by Commission staff in response to direction received at the Fourth Commission meeting in January on the following issues:

Lake Managers Workshops: On January 20-21, 1999, the Commission sponsored a Lake Managers Workshop which was attended by 24 managers from seven land management agencies. Four Commissioners also attended. The facilitated workshop asked the managers for their feedback on the proposed recommendations. The managers provided some very candid feedback.

Task 14 - Protection of Watershed and Ecosystem Values: The findings report was revised by adding a new section on Lake Fishery and Downstream Relationships.

Proposed Elements of the Final Published Report: **Jana Prewitt**, Executive Director, presented an overview and discussion of the proposed elements of the final report.

Overview of the Proposed Recommendations: **Bruce Brown**, Deputy Director, presented an overview of the comments received and resultant changes to the proposed recommendations for consideration by the Commission.

Public Comments: The Commission received comments from four members of the public, representing a variety of interests and concerns about the National Recreation Lakes Study: **Bob Miles**, International Association of Fish and Wildlife Agencies; **Derrick Crandall**, American Recreation Coalition; **Aubrey King**, Albertine Enterprises; and **Barry Tindall**, National Recreation and Parks Association.

ACTIONS TAKEN BY THE COMMISSION:

The following recommendations, grouped by theme, were approved by the Commissioners.

Recreation As a Priority

- Document demand
- Show management challenges
- Justify higher priority

Federal Lakes Recreation Leadership Council

1. Commit resources and establish an interagency Federal Lakes Recreation Leadership Council to coordinate recommendations of the National Recreation Lakes Study Commission.

Reinvention Laboratory and Demonstration Program

2. Develop a National Recreation Lakes Demonstration Program and apply for Reinvention Laboratory status for the Program.

Environment for Success

4. Operate Federal lakes to optimize water use for all beneficial purposes, including recreation and environmental values, consistent with Congressionally authorized purposes.
5. The Federal lakes leadership council shall review current guidelines regarding recreation activities for all Federal lakes and develop policy recommendations which will include best business practices to encourage private sector investment in needed recreation facilities.
7. Include the Bureau of Reclamation and the Corps of Engineers in the Recreational Fees Demonstration Program and allow fee revenues to be retained at the management unit where collected and used for capital improvements and operations and maintenance costs.
8. Encourage partnerships with non-Federal entities. Specifically, change Bureau of Reclamation and Corps of Engineers policies to allow them to cost-share with their non-Federal governmental partners for rehabilitation of recreation facilities developed in conjunction with States and local governments and Tribes.
9. Amend Federal grant-in-aid programs to eliminate the requirement for State matching funds when projects benefit Federal lakes.
10. Develop and implement aggressive public information programs to communicate the services and facilities available to the public as well as the mission and management of the

lakes, and interpretive programs to provide learning opportunities and experiences which help visitors and local residents learn about the natural and cultural history of the lake area leading to understanding of their important role as stewards of public lands and lakes.

11. Amend Public Law 89-72 to repeal the requirement that Federal entities can only develop new recreation facilities through cost sharing agreements with non-Federal governmental entities.
12. Establish water-related recreation performance measures for all Federal lake management agencies.
13. Establish regular Federal, State and local government and Tribal inter/intra-agency and private sector development assignments, exchanges and meetings for Federal lakes' supervisors and staff to enhance expertise and understanding.
14. In the implementation of the National Recreational Fisheries Conservation Plan give special emphasis to Federal lakes.
15. Encourage management agencies to adopt community based involvement in the management of the lake to promote environmental and community well-being.

Identify and Close the Gap

3. Conduct assessments at Federal lakes to determine customer needs, infrastructure and facility needs and natural resource needs. Develop a strategic plan for future investments in recreation infrastructure in response to these assessments. Consistent with the strategic plan, reduce the recreation facilities maintenance backlog over the next 10 years.
6. Provide adequate funding to improve lake water quality through a watershed management approach.

The Sixth Commission Meeting: The next Commission meeting is scheduled for April 19 & 20, 1999, location to be determined.

**Summary of
National Recreation Lakes Study Commission Sixth Meeting
April 19 & 20, 1999
Knoxville, Tennessee**

THE COMMISSIONERS: Six members of the Commission were present: Commission Chair **Bob Armstrong**, former Assistant Secretary for Land and Minerals Management, Department of the Interior; **William F. Cronk**, President of Dreyer's Grand Ice Cream, Inc., and Representative of the National Governors' Association; Commission Vice-Chair **Richard Davies**, Executive Director of the Arkansas Department of Parks and Tourism; **Dr. Kathryn Jackson**, Executive Vice President, Rivers System Operations and Environment, Tennessee Valley Authority; **Susan Savage**, Mayor of Tulsa, Oklahoma; and **Dr. Joseph W. Westphal**, Assistant Secretary of the Army for Civil Works.

FOLLOW UP TO THE FIFTH COMMISSION MEETING: **Bruce Brown**, Deputy Director of the National Recreation Lakes Study Commission Staff from the Bureau of Reclamation, presented FOLLOW UP actions taken by Commission staff in response to direction received at the Fifth Commission meeting in March on the following issues:

Bureau of Reclamation Area Manager Meeting: On March 16-17, 1999, Bruce Brown attended and made a presentation on the National Recreation Lakes Study. The main subject of the meeting was recreation management at the Bureau's water development projects. Commissioner Martinez formed a team to assist the BOR Office of Policy in developing a comprehensive recreation policy and guidelines and to look for ways to stimulate partnerships.

Corps of Engineers Ranger Workshop: On March 16, Dave Wahus spoke to a group of about 60 Corps park rangers from California, Arizona and New Mexico about the proposed National Recreation Lakes Study recommendations. The rangers expressed their strong support of the recommendations.

International Association of State Fish and Wildlife Agencies: On March 27, 1999, Commissioner Cronk and Chris Dlugokenski addressed the Association's Inland Fish Committee and the Boating and Boating Safety Committee on the National Recreation Lakes Study. They were told that the Commission needs to recommend that recreation be included as an authorized and operational purpose at all Federal lakes.

National Association of Recreation Resource Planners: On April 8, 1999, Bruce Brown attended and spoke to the Association on the National Recreation Lakes Study. They indicated a willingness to become involved in the communications plan.

Overview of the Proposed Report Design: **Katherine Key**, Key Associates Design and Advertising, presented an overview of the proposed layout and graphic design of the final report.

Overview of the Draft Report, Conclusions and Recommendations: John Svicarovich, presented an overview of the report, the conclusions and the final recommendations.

Public Comments: The Commission received comments from six members of the public, representing a variety of interests and concerns about the National Recreation Lakes Study: **David Bernheim**, Skiers of Knoxville, Inc.; **J. Garrett Begley**, Skiers of Knoxville, Inc.; **Betsy Oilman**, National Marine Manufacturers Association; **Derrick Crandall**, American Recreation Coalition; **David Brown**, America Outdoors; **David Kannady**, Southwestern Power Administration; and **Ted Coombes**, Southwestern Power Resources Association.

ACTIONS TAKEN BY THE COMMISSION:

The following conclusions and recommendations, grouped by theme, were approved by the Commissioners.

Conclusions

Based on its findings, the Commission draws the following conclusions about the status of recreation at federal manmade lakes, and about the difficulties of providing lake-related recreation to the American public.

1. Federal lake recreation is a significant national resource and public benefit of federal water projects.
2. Recreation at federal lakes has not been treated as a priority, or often even an equal, with other uses.
3. Recreation management at federal lakes has suffered from lack of unifying leadership and policy direction.
4. Recreation facilities at most federal lakes are inadequately maintained and insufficient for current levels of public use.
5. Current federal recreation user fee practices are not particularly successful as a revenue generator.
6. Meeting current and future demands for lake-related recreation will require smart, flexible, visionary management and better ways of doing things.
7. The merit of providing recreation services through local partners underscores the need to expand and improve development and operating partnerships with state and local governments and with private businesses.

8. Inconsistent concessionaire policies across lake management agencies does a disservice to the public.
9. Policies against cost sharing with state and local government partners are unwise.
10. There is ample justification and precedent to integrate reservoir water management, particularly drawdowns and flow levels, to serve recreational and environmental purposes.
11. Clean water is critical to lake recreation as well as lake health.
12. The concept of a national recreation lakes system has merit, but implementation of such a system does not make sense before it can be tested through a smaller scale demonstration program.

Administrative and Legislative Recommendations

The Commission recommendations are grouped according to five general themes.

1: MAKE RECREATION A HIGHER PRIORITY AT FEDERAL LAKES

Recommendation 1-1: Provide clear guidance at all agency levels that recreation is a project purpose and should receive appropriate budgetary and operational treatment.

2: ENERGIZE AND FOCUS FEDERAL LAKES RECREATION LEADERSHIP

Recommendation 2-1: Establish and adequately fund an interagency Federal Lakes Recreation Leadership Council to coordinate recommendations of the National Recreation Lakes Study Commission.

Administrative Actions. The Council can be established by a memorandum of agreement signed by the Secretaries of Agriculture, the Army, and the Interior and by the Chairman of the Tennessee Valley Authority. Expanding the Council to include state, local, tribal and private participants will require a Federal Advisory Committee Act advisory council that can be initiated and administered by one of the departments. The Commission further recommends that the expanded membership council be created by executive order.

Legislative Actions. The Commission asks the Administration and Congress to work together to draft legislation for a comprehensive Federal Lakes Recreation Act. A section of that bill should create a board or commission which would advance the prior work of the Council. The membership would include federal, state and local government and private sector representatives.

3: ADVANCE FEDERAL LAKES RECREATION THROUGH DEMONSTRATION AND REINVENTION

Recommendation 3-1. Develop a National Recreation Lakes Demonstration Program and apply for Reinvention Laboratory status for the program.

Administrative Actions. As a first order of business under the memorandum of agreement, the Council will establish the process and criteria for federal lakes to be included in the pilot demonstration program. The Council will select a dozen or so lakes and make application to the National Partnership for Reinvention for designation as a Reinvention Laboratory. Necessary funds and other resources will be identified to conduct the Demonstration. An annual status report will be submitted to the Council.

Legislative Actions. A section could be included in the Federal Lakes Recreation Act to establish a pilot demonstration program. Necessary funding would have to be attached.

4: CREATE AN ENVIRONMENT FOR SUCCESS IN FEDERAL LAKES RECREATION MANAGEMENT

Recommendation 4-1: Operate federal lakes to optimize water use for all beneficial purposes, including recreation and environmental values, consistent with Congressionally authorized purposes.

Administrative Actions. All federal lake management agencies must develop and incorporate an integrated approach to water management into all lake management plans. One of the objectives in such plans should be to use operation flexibility to increase recreation and environmental benefits within current authorities. This effort must be included in each agency's strategic plan.

Legislative Actions. In drafting a comprehensive Federal Lakes Recreation Act, a provision should be included that discusses an integrated approach to water management. One creative approach might be to allow Land and Water Conservation Funds to be used to purchase water and water rights for recreation and environmental benefits.

Recommendation 4-2: Review current guidelines regarding recreation activities for all federal lakes and develop policy recommendations which will include best business practices encouraging private sector investment in needed recreation facilities.

Administrative Actions. The Federal Lakes Recreation Leadership Council should form an ad hoc group to review current guidelines regarding recreation activities for all federal lakes and develop policy recommendations which will include best business practices encouraging private sector investment in needed recreation facilities. They should use the 1995 memorandum of understanding as a guide.

Recommendation 4-3: Make the Fee Demonstration Program permanent and allow it to include revenues collected from concessions operations. Include the Bureau of

Reclamation and the Army Corps of Engineers in the program. Allow fee revenues to be retained at the management unit where collected, and allow them to be used for capital improvements and operations and maintenance costs.

Legislative Actions. Legislation is required to make the Fee Demonstration Program permanent and to include concessions and permit revenues. The Administration should request the Congress to include the Bureau of Reclamation and the Army Corps of Engineers in the Fee Demonstration Program.

Recommendation 4-4: Encourage partnerships with nonfederal entities. Specifically, change Bureau of Reclamation and Army Corps of Engineers policies that now forbid cost sharing with nonfederal government partners for operation, maintenance, and rehabilitation of recreation facilities at parks on federal lakes.

Administrative Actions. The Bureau of Reclamation and the Army Corps of Engineers should revise their policies and develop creative cost sharing arrangements with their nonfederal managing partners for the necessary rehabilitation, operation, and maintenance required to provide safe, clean, and accessible recreation facilities. This should be addressed in a separate line item in each agency's budget.

Recommendation 4-5: Amend Public Law 89-72 to repeal the requirement that federal entities can develop new recreation facilities only through cost sharing agreements with nonfederal governmental entities.

Legislative Actions. The Federal Lakes Recreation Leadership Council should work with the Congress to draft legislation that will allow the Bureau of Reclamation and the Army Corps of Engineers to plan, construct and operate recreation areas absent a nonfederal managing partner.

Recommendation 4-6: Amend federal grant-in-aid programs to eliminate the requirement for state matching funds when projects benefit federal lakes.

Legislative Actions. The Federal Lakes Recreation Leadership Council must work with the Congress and draft legislation that will amend the Federal Aid in Sport Fish and Wildlife Restoration Acts, the Transportation Equity Act for the 21st Century, and the Land and Water Conservation Fund Act to waive the necessity of providing a nonfederal funding source to meet cost-share requirements. These acts were reauthorized in 1998. The next reauthorization is scheduled for 2003.

Recommendation 4-7: Develop and implement programs to inform public users of federal lakes about the mission, history, management, services, and facilities of the lakes. These programs should help people appreciate their role as stewards of public lands and lakes.

Administrative Actions. The Federal Lakes Recreation Leadership Council should form an ad

hoc group to develop a guidebook for implementation of public information and interpretation programs at the local level. The guidebook should include policies, guidelines, resources, training opportunities, networking opportunities, and federal and alternative funding sources for building support at the local level.

Recommendation 4-8: Establish water-related recreation performance measures for all federal lake management agencies.

Administrative Actions. The Federal Lakes Recreation Leadership Council should form an ad hoc group to develop suggested water-related recreation performance measures for all federal lake management agencies for their GPRA Performance Standards.

Recommendation 4-9: Establish regular federal, state and local government and tribal inter/intra-agency and private sector development assignments, exchanges and meetings for federal lakes' supervisors and staff to enhance expertise and understanding.

Administrative Actions. The Federal Lakes Recreation Leadership Council should form an ad hoc group to develop an interagency training and information exchange program to bring the highest level of business expertise to bear on government challenges at federal lakes. The Council should hold an annual lake manager meeting to share new ideas.

Recommendation 4-10: In the implementation of the National Recreational Fisheries Conservation Plan, give special emphasis to federal lakes.

Administrative Actions. The Federal Lakes Recreation Leadership Council should request that each agency's recreational fisheries action plan be amended to reference pertinent recommendations from the National Recreation Lakes Study. The plans should identify how the actions support the goals and recommendations of this study. Specific management actions to achieve recreational fisheries goals can be demonstrated at the reinvention labs in cooperation with state and tribal fish and wildlife agencies.

Recommendation 4-11: Encourage agencies to work with communities on lake management issues.

Administrative Actions. The Federal Lakes Recreation Leadership Council should form an ad hoc group composed of agency and private sector experts in community based approaches to problem solving to create sound policies, a process, technical assistance and training so that lake managers can work with communities to develop recreation programs on federal lakes in a way that contributes to community and environmental well-being.

5: IDENTIFY AND CLOSE THE GAP BETWEEN RECREATION NEEDS AND SERVICES

Recommendation 5-1. Conduct assessments at federal lakes to determine customer needs, infrastructure and facility needs and natural resource capabilities. Develop a strategic plan for future investments in recreation infrastructures in response to these assessments. Consistent with the strategic plan, reduce the recreation facilities maintenance backlog over the next 10 years.

Administrative Actions. The Federal Lakes Recreation Leadership Council should provide guidance for federal lake assessments. The Council should establish an interagency research team and solicit projects from federal and state agencies, academia, and the private sector that provide recommendations and implement strategies to enhance recreation at federal lakes while protecting fish and wildlife resources. The council should facilitate any required OMB clearances.

The Federal Lakes Recreation Council should coordinate with all the federal agencies to develop a ten-year maintenance and capital improvement plan for the federal lakes they administer, beginning in FY 2001, to achieve a complete reduction of the baseline recreation maintenance backlog over ten years.

Legislative Actions. The Federal Lakes Recreation Leadership Council should work with the Congress to develop appropriate budget requests and Congress should appropriate additional federal funding to assure that needed but aging recreation facilities are brought up to health and safety standards. Provisions could be incorporated into the Administration's Lands Legacy Program or related Congressional bills.

Recommendation 5-2. Improve lake water quality through a watershed management approach.

Administrative Actions. The Federal Lakes Recreation Leadership Council should suggest that:

1. EPA regional coordinators be encouraged to work directly with counterparts at the state, tribal and local level to ensure that critical needs of federal lakes are addressed through Section 319 funding.
2. EPA hold a national conference to address critical water quality improvement needs specific to recreation lakes (including the process to ensure that lake management needs are included in state non-point source pollution programs and are grant eligible and competitive for Section 319(h) funds.
3. Federal agencies in implementing the Unified Federal Policy of the clean Water Action Plan and other related programs specifically ensure that federal recreation lakes of pristine quality are included in key watersheds that need special protection. Designated "key" watersheds would receive priority in agency management and resource allocation decisions. These actions should be taken in partnership with local, state, and tribal governments.

This was the last Commission meeting. No additional Commission meetings are scheduled.

The National Recreation Lakes Study Commission Public Workshop Held at the BASS Masters Classic in Greensboro, NC, on August 8, 1998

The workshop was hosted by Commission Vice Chairman Richard Davies, and facilitated by staff Deputy Director, Bruce Brown. Doug Alcorn, U.S. Fish and Wildlife Service, recorded.

About 60 people attended the workshop who primarily represented State Fishery departments and BASS Federations. The submitted attendance list is attached.

The workshop was structured around five questions:

1. What are the major recreation needs at Federal lakes?
2. How do you recommend recreation be paid for? (development, replacement, mitigation, operation and maintenance)
3. What legislation, regulations or policies limit recreation opportunities?
4. How can above dam and below dam recreation activities both be enhanced at the same time?
5. What kinds of partnerships can provide for and manage recreation facilities and services? What can be done to increase partnership successes?

The workshop participants spent about 15-20 minutes discussing answers to each question which were recorded on flipcharts. Then through a multi vote process each participant was asked to indicate the 4 best answers to each question. The votes were tallied and results discussed until a group consensus was reached. The top five answers to each question are:

Question No.1 - What are the major recreation needs at Federal lakes?

- 1). Improve/enhance fish habitat
- 2). Access to all activities - General and handicapped
- 3). Re-align Federal funding to support recreation needs
- 4). Define the desired recreation experiences (Recreation Opportunity Spectrum) at each lake
- 5). Water quality standards and minimum flow requirements

Question No.2 - How do you recommend recreation be paid for? (development, replacement, mitigation, operation and maintenance)

- 1). Allow states to use Wallop/Breaux funds as their share of matching funds
- 2). Allocate a higher percentage of Federal budgets toward recreation
- 3). Project beneficiaries should pay for recreation
- 4). An alternate tax structure to include all users, not just anglers and boaters
- 5). Revise mission statements to include recreation as a primary mission and allocate more money for that use.

Question No. 3 - What legislation, regulations or policies limit recreation opportunities?

- 1). Fisheries input into management plans is insufficient
- 2). Amend COE policy that prohibits full funding of construction costs and sharing of Operations and Maintenance
- 3). Recreational Fishery Executive Order isn't being implemented at the field level
- 4). Policies that limit volunteer partnerships in bidding for and building recreation facilities and providing services
- 5). Policies that have opposing goals (e.g. biodiversity vs. recreation)

Question No.4 - How can above dam and below dam recreation activities both be enhanced at the same time?

- 1). Authorize/mandate Federal water project managers to model their operations to determine ecosystem and recreation benefits
- 2). Improve water level management to protect spawning fish
- 3). Develop better flow regimens
- 4). Address sediment source problems from a watershed approach
- 5). Amend policies to improve public access to below dam areas

Question No. 5 - What kinds of partnerships can provide for and manage recreation facilities and services? What can be done to increase partnership successes?

- 1). Get all users groups and stakeholders to work together. Form watershed level councils
- 2). Establish a comprehensive resource management process and provide training to managers to maximize resource benefits
- 3). Update reservoir use valuations. Apply dollar values to appropriate uses
- 4). Integrate user groups into management planning and decision making
- 5). Encourage outreach for partnerships, maintain flexibility

Other Comments:

1. Policies and planning processes must include or consider recreation needs and issues
2. Lake management plans should identify shoreline development areas
3. Public must be involved in developing criteria for "for profit" enterprise efforts

At the conclusion of the workshop the participants were told they could read the results on the National Recreation Lakes Study web page which is: www.doi.gov/nrls

Attachment

Attendees of the National Recreation Lakes Study Commission Public Workshop at the BASS Masters Classic in Greensboro, NC on August 8, 1998

Alcorn, Doug
USFWS - SFBPC

Alleman, Orville
Oregon BASS

Bonneau, Don
Iowa Dept. of Natural Resources

Boyd, Tom
Nebraska BASS Federation

Brouha, Paul
American Fisheries Society

Brown, Columbus
USFWS

Carter, Allen
Arkansas Game & Fish Commission

Cofer, Larry
OK DOWC

Doss, Jim
Ohio BASS Chapter Federation

Erickson-Eastwood, Linda
Minnesota DNR - Section of Fisheries

Fontenotyn, Bennie
LA Dept. of Wildlife & Fisheries

Gennings, Mike
Georgia Dept. of Natural Resources

Gross, John
Illinois BASS Federation

Hess, Tim
Vermont Department of Fish & Wildlife

Hildebrandt, Dan
Wisconsin State BASS Federation

Hollarbaugh, Paul
Indiana Bass Federation

Hueble, Tom
South Carolina BASS Federation

Incerpi, Angelo
Vermont Dept. of Fish & Wildlife

Johnson, Lee
BASS & Lillinorh Lake Authority

Kim Huey
Kansas BASS Chapter Federation

Merriman-Clarke, Kristen
American Fisheries Society

Moulton, Norm
Maine BASS/Bd of Directors - Maine
Congress of Lake Association

Noah, Jim
Missouri BASS Federation

Nygren, Doug
Kansas Dept. Of Wildlife & Parks

Peterson, Edward A.
California BASS Federation

Pettengill, Tom
Utah Division of Wildlife Resources

Pfeiffer, Dan
Washington State BASS Federation

Pierce, Bert
West Virginia Dept. of Natural Resources

Redmond, Lee C.
Missouri Department of Conservation

Risner, Phillip
South Dakota BASS Federation

Sanders, Randall E.
Ohio Division of Wildlife, Fish Mgmt. &
Research

Schupp, Bruce
BASS Masters Classic

Snider, Patrick
Colorado BASS Federation

Soldwedel, Robert H.
New Jersey Division of Fish, Game &
Wildlife

Southwick, Ron
Virginia Dept. of Game & Inland
Fisheries

Staggs, Michael
Wisconsin Department of Natural Resources

Steinwand, Terry
North Dakota Game & Fish Dept.

Stone, Mike
Wyoming Game & Fish Department

Summers, Jim
West Virginia BASS Federation

Unkenholz, Dennis
South Dakota Game, Fish & Parks

Weikert, Bill
Rhode Island BASS Federation

Womack, Dusty
BASS Federation

National Recreation Lakes Study Workshop Notes
Tom Strickland's Office
Denver, Colorado, September 2, 1998

At 12 pm, Tom Strickland, began the Lakes Study Workshop by introducing the commission staff, Bruce Brown, and by providing some background on the other commission members. Mr. Strickland also explained the workshop purpose/focus – to identify and discuss below dam issues, including environmental issues, with workshop participants and to encourage their input for the commission study. Mr. Strickland stated that at least one other workshop, scheduled for October 14, 1998, will be held in the Denver area to discuss flatwater issues and that all were invited to attend.

Introductions were done by participants. The following individuals were in attendance:

Robert Wiygul, Earth Justice
 Jay Kenny, Colorado Whitewater Association
 Jim Martin, Environmental Defense Fund
 Dave Nickum, Trout Unlimited
 Kevin Foley, Arkansas River Outfitters Ass. & Colorado River Outfitters Ass.
 Jim Moss, Paddle Sports Association
 Craig Mackey, Outward Bound, America Outdoors & Board Member of ORCA
 Robin Knox, Sports Fish Program Manager with the Colorado Division of Wildlife & representing the American Sport Fishing Association
 Andy Schultheiss, Wilderness Society
 Gene Reetz, Environmental Protection Agency, Region 8
 Laurie Mathews, Director of Colorado State Parks
 Jerry Mallett, Adventure Travel
 Dean Winstanley, Colorado State Parks

Bruce Brown gave an overview of the commission and its charge. His overview, accompanied by an information packet that was handed included an explanation of legislation, commission goals, list of Commissioners, a fact sheet, press release and the estimated economic impact of recreation on Federal water projects in Colorado. Bruce mentioned that the next meeting of the commission will be on Sept. 9-10 1998, at Lake Mead, NV.

Bruce passed out a list of questions to the participants to help focus the workshop discussion. Question #1, “*What are the primary ecosystem values associated with downstream areas below federal dams?*” was thrown open to the participants to answer. Gene Reetz recommended that the commission and staff review *Dams and Rivers, A Primer on the Downstream Effects of Dams*, a report published by the US Geological Survey in June 1996. Mr. Reetz stated that the report presents valuable information.

Jim Moss stated that another issue of concern are dam releases and the damaging effects they

have on recreation, such as at the Grand Canyon. He also stated a big concern in Colorado is that under state law, no recreational value is placed on water released from dams when used for recreation purposes.

Gene Reetz added that more contemporary downstream values, such as environmental and recreational impacts of federal dam projects, need to be considered and incorporated into future management and policy decisions by the managers of these projects. He discussed a recent study of the Missouri River system, stating that the study concludes that only 30-35% of the river's natural flow remains. He discussed the interest that exists to restore sections of the river, stating that the streambanks can provide a critical role as habitat, especially for endangered species, and that the Federal management of the impoundments has a big impact in these efforts.

Mr. Strickland asked if there are collaborative efforts that demonstrate proactive management which deals with these contemporary downstream issues, such as one that currently exists between Colorado State Parks and the BLM on the Arkansas River in Colorado.

Jim Moss stated that there are no "normal ecological environments" left on rivers in Colorado; they have all been altered.

Gene Reetz mentioned that controls over downstream impacts have been done through Federal Energy Regulatory Commission permits (FERC) permits. He also stated that the commission needs to look at water quality issues in regard to potential recreation on and downstream from these impoundments. He added that 39% of ponds, lakes and reservoirs in the US do not meet water quality standards. Water quality is a huge problem, especially given the fact that much of it is non-point source pollution.

Robert Wiygul added that non-point pollution issues, which are concerns in the Cherry Creek and Chatfield basins in Colorado, are just starting to be addressed nationally. Any help the commission can give toward addressing these problems would be greatly appreciated.

Andy Schultheiss asked whether this commission study would provide an opportunity for comments on whether current dams are needed. He recommended that a "mega study" of this issue be undertaken by the commission and staff.

Tom Strickland responded by saying that such information gathering is possible but that any such report would need to be prepared by February 1999. At the very least, public comments on such issues will be taken into account. In addition, Mr. Strickland offered that a potential outcome of the commission study could be the need for further studies into the need for certain Federal water projects. He is not troubled by such questions or considerations. Jay Kenney added that such questions are appropriate for the commission to consider.

Mr. Strickland stated that the likelihood is that such projects will stay in place and suggested that the focus should be on how the projects can be better managed. Most of these water projects are

decades old and very few were created for recreation purposes or with environmental values in mind – such considerations were an afterthought if they were considered at all. The commission and its meetings provide an opportunity to raise these concerns.

Jim Moss suggested that a value on downstream recreation use is needed to compare to flat water boating's economic impact. Currently, no data on such downstream values exists.

Bruce Brown stated that data on economic values associated with recreation on Federal water projects have already been developed and is available on the National Recreation Lakes Study website. The \$44 billion figure includes both downstream and on-reservoir economic values, but Bruce said the values could not be broken out to show downstream values only.

Gene Reetz suggested that the commission staff contact the Recreation department at Colorado State University which Gene believes has done some work on valuing downstream recreation use.

Kevin Foley stated that Joe Griner, on behalf of the Colorado River Outfitters Association, produced the *River Use in the State of Colorado 1988-1997*, which provides data on commercial river use and economic impacts of these activities on rivers in Colorado. Much of the information and data was provided by Federal land management agencies including the National Park Service, USDA Forest Service and the BLM. Kevin added that information in this report indicates demand for recreation activities on these rivers is increasing. Commercial river outfitters in Colorado would like to see downstream recreation opportunities enhanced as a result of the commission's work.

Andy Schultheiss stated that wilderness values have not to date been given economic values.

Robin Knox explained that ecosystem values can indeed be in conflict with each other. For example, native species reintroduction efforts vs. stream augmentation. These efforts are not always compatible.

Laurie Mathews stated that one of the drawbacks to managing for these contemporary downstream values is that such values are not specifically identified and valued in the statements of purpose which direct activities at these Federal projects.

Craig Mackey added that these values actually are included in many Federal land agency plans, but only at the Washington DC level. The agencies are actually talking about ecosystem values but in reality are not managing for ecosystem values at the projects.

Tom Strickland interjected to get the participants to consider the second question: *Currently, what are the most difficult issues in managing for these values in downstream use?* Tom stated that based on the comments so far, he's hearing that often the Federal project purpose compromises ecosystem values, and that many are suggesting that these purpose statements

should in fact be changed to better address these contemporary values. Perhaps an omnibus bill to require ecosystem management in project purposes for Federal agencies could be an appropriate route to consider.

Tom Strickland suggested that one potential approach would be for Secretary Babbitt to travel out west and meet on these issues to discuss legislative approaches to solutions.

Robin Knox expressed some skepticism saying that there are downstream mitigation requirements that are not being adhered to by agencies.

Tom Strickland asked what “hooks”, if any, are there that actually work to accomplish management changes that better address these downstream ecosystem values? He asked the group for specifics about the outlet release from Glen Canyon Dam—how was that accomplished?

Jim Martin stated that in that case, the action was the result of a number of lawsuits filed by the Environmental Defense Fund against the Bureau of Reclamation. He added that reliance on the Endangered Species Act (ESA) is about the only way to effectively force ecosystem management. He suggested that a more effective way to address these issues is proactively – to avoid the “hammer” of ESA provisions, a better route indeed is to change these project purposes to a more holistic approach to watershed management.

A brief discussion of the Federal Land Policy and Management Act (FLPMA) ensued. Craig Mackey stated that the consideration of resource management planning process in FLPMA is an effective model and should apply to all Federal land management agencies.

Gene Reetz talked more about efforts to restore sections of the Missouri River. Tom Strickland asked Gene Reetz to help assemble an executive summary of the Missouri River efforts. Tom also asked Robert Wiygul to provide him with a full briefing on the Glen Canyon release issue so he will be able to brief the other commission members on this “case study”. He said that he sees a need for recreationist/environmental coalitions on some of these issues.

Jim Martin pointed out that, unlike the well-known release from Glen Canyon for downstream ecosystem purposes, such releases on smaller reservoirs will dramatically draw down recreation pools and have a significant impact on reservoir recreation.

Craig Mackey suggested that the commission and staff develop an inventory of all downstream areas and what these areas are used for. Bruce Brown indicated that much of that information is contained in the National Rivers Inventory. Craig Mackey added that the staff should brief the commission on these values—all downstream values.

Tom Strickland began the closing comments for the workshop. He stated that it is important that all points of view about these Federal projects be heard in the commission’s process and said that he would be ensuring that idea is carried through the process. He said that he wants to draw on

the expertise of the people in this workshop. Comments will be taken in public meetings and he encourages everyone to participate by bringing some creative aspects to the study recommendations.

Bruce Brown stated that the staff and commission are actively seeking input from individuals such as the workshop participants. He added that the best way to help is by providing written answers to the questions distributed at this workshop.

Time constraints prevented the participants from reaching consensus conclusions on the three questions. Therefore, these notes represent the participant's comments. Further information received will be added to this record.

**The National Recreation Lakes Study Commission Workshop
Held in Chicago, Illinois
September 30, 1998**

The workshop was held in conjunction with the National Marine Manufacturers Association Boating Facilities Development Committee meeting. The attendees were:

Members

Ed McKiernan, Chair	SeaLand Technology, Inc.
Al Behrendt	Behrendt Enterprises
Keith Boulais	Premier Materials Technology
Mike Bradley	NC Marine Trades
Arthur Brettnall	Raritan Engineering Co., Inc.
Paul Dodson	International Marina Institute
Robert Giesler	All Seasons Maxine
Scotty Harrell	Albemarle Boats
Bob Harty	Atlantic Meeco
William Keene	Edson International
William Koelbel	Dock Hardware, LLC.
George Kraemer, II	Kracor, Inc.
Bob Lippert	Attwood
Andrew Mears	Bellingharn Marine
Barry Olsen	Galva Foam Marine Industries
Tinsley Preston	Preston Publications
Ron Stone	National Marine Manufacturers Assoc.
Phil Teah	Charles Industries
George Van Zevern	Boat & Motor Dealer
Ken Wells	Galva Foam Marine Industries

MOAA

Doug Beachem	Lazy Days Marina
Richard Dunn	Stephens Marine, Inc.
Jun Frye	MOAA
John Pheiffer	Battery Park Marina
Bill Roof	Roof& Rack
Mildred Walker	Lynn Creek Marina, Ltd.

Guests

Bruce Brown	National Recreation Lakes Study Commission
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National Recreation Lakes Study: Mr. Bruce Brown, Deputy Director, National Recreation Lakes Study Commission, led a stimulating thought-provoking exercise eliciting answers from the

recreational marine industry on some of the most important questions relating to the feasibility of creating greater public recreation opportunities on federally managed, man-made lakes. To begin, he distributed background literature on the congressionally authorized National Recreation Lakes Study and the presidentially appointed study commission which is due to report its findings to Congress in 1999. To facilitate matters, that study is focused on 492 federal lakes of 1,000 surface acres or more, generating \$44 billion a year in total economic impact. However, this does not necessarily exclude consideration of other water bodies among the total of nearly 1,800 federal lakes, Brown explained.

By virtue of intense discussion, the mix of NMMA Boating Facilities Development, MOAA and IMI members at the September 30 meeting arrived at the following answers to the questions posed. They are ranked according to opinion of their importance:

1. What are the major recreation needs at federal lakes?

a. Facilities and services based upon public-private partnerships are viewed as the best way to provide recreation opportunities, recognizing that technically the private sector is better qualified to provide and maintain them. However, facilities and services must be economically viable. They must afford profit-making opportunities. Ultimately, the mix of desired improvements will be largely dictated by considerations of cash-flow.

b. Ideally, the management of recreation opportunities on federal lakes should be consolidated in one overarching agency in the interests of consistency and uniformity of policy. However, if that is not feasible, conscious, deliberate efforts should be made to achieve consistent, uniform policy among the several federal water resource management agencies. Creation of an advisory council is recommended.

c. In order to reap the benefits of water-based recreation on federal lakes, the public must have direct public access to the water as well as the infrastructure, e.g., roads, restrooms, drinking water, and sewerage, to make use of the access facilities convenient and enjoyable.

d. Clean water is essential to a quality recreation experience.

What federal legislation, regulations or policies limit recreation opportunities?

a. Present entrenched thinking among federal water resource management agencies as to their historic primary missions. Despite dramatic growth in use of federal lakes for recreational purposes, recreation continues to take a back seat to the purposes for which the lakes were originally created. There needs to be an adjustment of priorities, taking cognizance of actual present-day use demands. This segues into the need for a national policy recognizing the importance of recreation at federal lakes and countering "local" federal water resource management policies that inhibit wider recreation opportunities.

b. A perceived bias by government against private commercial development, management and operation. There needs to be a level playing field between public and private sectors. Cut out unreasonable competition by government, i.e., lower rates and different terms than those afforded private concessionaires.

c. Elusive uniform concession reform legislation. For more than 20 years private concessionaires on federal lands have unsuccessfully sought legislative reforms by Congress to give them a better chance to make a living. In order to make a national recreation lake system based on public-private partnerships work, Congress must provide nationally uniform guiding principles for economically viable concession leases and consistent concession policy.

d. Widespread failure to accept the fact that public recreation now equals or exceeds other applications of multiple purpose lakes as an economic contributor to the general public welfare. Although major federal water resource management agencies have developed data that substantiates that recreation is a key economic contributor justifying maintenance of their lake projects, they seem to hold to a negative image of recreation being at odds with the original project purpose(s). There needs to be a reevaluation of cost-benefit analyses.

3. What kinds of partnerships can provide for and manage recreation facilities and services? What can be done to increase partnership success?

a. The recreational marina industry, being important stakeholders, should be given every opportunity to make direct input to the National Recreation Lake Study Commission about ways of creating workable public-private partnerships.

b. In the process, an overarching federal authority that can produce guidelines or a direction is needed. This does not suggest eliminating existing authorities, but looks for the evolution of national policies and uniform compliance by the several agencies. A National Recreation Authority would be ideal, but if that is not possible, an Interagency Coordination Council is recommended. There is precedent for this in advisory councils to the U.S. Fish and Wildlife Service and the Coast Guard, made up of a mix of industry, user groups and government, which have been created to advise those agencies on important matters of recreational boating and fishing.

c. Use the Uniform Commercial Code as a model. The UCC, a code of practice which state governments subscribe to in uniformly treating of interstate commerce, can be an inspiration for federal water resource management agencies in need of nationally uniform procedures in dealing with public-private partnerships.

At the conclusion of this exercise, Mr. Brown indicated that he was very pleased with the fruits of the collective thinking. He advised the Committee that they could look forward to publication on the NRLS Commission Web Page as soon as their conclusions were consolidated with similar

other brainstorming sessions being held by Commission staff around the country.

National Recreation Lakes Study Workshop Notes
Tom Strickland's Office
Denver, Colorado, October 14, 1998

At noon, Tom Strickland introduced his second Lakes Study Workshop by providing general background about the Study's intent, the commission staff members, and the purpose of the workshop – to identify and discuss above dam issues related to federally managed lakes, including environmental issues, with workshop participants and to encourage their input for the Study. There are two unique groups here, the flat water recreationists and agencies or managers of the water and surrounding recreation. He asked that participants, together, focus on a number of key issues to determine how we can balance the potential increase in recreation and its impacts on these national lakes.

Tom mentioned that federal lakes, 50 years ago, were managed for purposes of **hydropower, irrigation, navigation and flood control**, but now the focus is shifting to recreation, due to such facts as economic impacts. Example – Lake Mead has a 3 million dollar economic impact per year.

The following were in attendance:

Commissioner to the Lakes Study, Tom Strickland

National Recreation Lakes Study staff member, Dave Wahus

Colorado State Parks, Jennifer Elling

Rocky Mountain Jet Ski, Cherry Creek Lake, Colorado, George Wildes

Denver Yacht Club, Glenn Garvey

Rocky Mountain Rowing, Amy Shonstrom (Cherry Creek Lake, Colorado)

Colorado State Parks (Cherry Creek Lake, Colorado), Carolyn Armstrong

Bureau of Reclamation, Stan Seigal

Colorado Division of Wildlife, Robin Knox

Denver Water, Dave Bennett

Denver Water, Neil Sperandeo

Colorado Dept. Of Health & Environment, Pat Teegarden

Westminster City, Mark Reddinger (Stanley Lake, Colorado)

Aurora Reservoir, Colorado, Rick Mueller

Boulder Reservoir, Colorado, Rick Marlowe

Colorado State Parks, Rick Storm

Nature Conservancy, Mark Burget

Written Statement Provided by Don Lewis, President, Colorado Marine Dealers Assoc.

Dave Wahus gave an overview of the commission and its charge and goals. His overview, accompanied by an information packet that was handed out included an explanation of legislation, commission goals and action plan, a fact sheet, and estimated economic impacts of recreation on Federal water projects in Colorado. Dave mentioned the next Commissioners meeting will be held Nov. 9-10, 1998 at Lake Lanier, Georgia. Information on the Lakes Study and this workshop notes are available on the internet at: www.doi.gov/nrls.

Tom Strickland began by referring participants to a hand out list of questions, to help focus the workshop discussion.

Question 1 “How can above dam and below dam recreation activities both be enhanced at the same time?”

Participants responded as follows:

Carolyn Armstrong stated that water level control is a source of conflict and communication between water users and managers of the lakes levels is a major component of reducing this conflict.

Dave Bennett mentioned that recreation has no “legal” rights or authority in Colorado when it comes to water.

Tom Strickland asked what needs, if any, are there to institutionalize communication (i.e. recreation as a written priority at federal lakes).

Dave Bennett said communication at the lower levels of government is important. He said that when Denver Water gets calls regarding needed water level changes, Denver Water moderates these water levels and adapt to needs if it can. Dave said Denver Water is attempting to increase water storage space to help with maintaining consistent flows throughout seasons.

Tom Strickland said this was a good example of management taking initiative based on communication. He emphasized the fact that water releases to downstream of the lakes has a direct impact on recreation and, therefore, economic impacts.

Stan Seigal said operators and managers need to engage in communicating more with water users. To his knowledge, management plans at BOR lakes do not address recreation, so there is a missing written authority on recreation and planning.

Laurie Mathews mentioned that Memorandums of Understanding between agencies or various users can act as the written authority on recreation and water at lakes.

Tom Strickland mentioned that the Federal Land Policy and Management Act (FLPMA) has a resource management planning process and this could be a model for what should apply to all federal land management agencies.

Question 2 “What kinds of partnerships can provide for and manage recreation facilities and services? What can be done to increase partnership successes?”

Participants responded as follows:

Laurie Mathews said Colorado State Parks has a good partnership with the Bureau of Reclamation (BOR), with six state parks getting funded with a 50/50 cost share partnership. Presently, State Parks and the Army Corps is looking at a similar cost share initiative for three Army Corps projects that are managed by Colorado State Parks.

Carolyn Armstrong added the fact that at Cherry Creek State Park, alone, has over 100 partnerships with local, state, federal, and private groups. The latest example is a citizens group forming to raise three million dollar endowment fund to help keep trail users from paying a fee to enter the park.

Dave Wahus mentioned that from his experience at the Army Corps the employees “on the ground” are usually the most innovative in solving problems.

Carolyn Armstrong recommended that management decisions at federal agencies be re-structured to allow for more decisions to happen at the lower levels, because the present system is too cumbersome. She sighted an example at Cherry Creek where the jet ski concessionaire operator had to get Army Corps permission from the Corps DC office in order to make a very small change in operation.

Tom Strickland asked about the application of the federal concessionaire laws. Carolyn said they apply in a hodgepodge way, but not often applicable.

Laurie Mathews talked about water quality issues at federal lakes needs to be addressed.

Tom Strickland asked if there was a phosphorus issue at lakes.

Carolyn Armstrong said yes, phosphorus was an issue along with the overall water quality problems at lakes receiving such a huge recreation demand.

Question 3 “What are the major recreation needs at federal lakes?”

Participants responded as follows:

Rick Meuller brought up the need for more buffer zones around lakes to help prevent environmental damage.

Laurie Mathews said that future partnerships should address land acquisition, along with facility repair and improvements.

Tom Strickland gave an example of a controversial topic where the Tennessee Valley Authority (TVA) has started developing property around federal lakes.

Robin Knox talked about an amendment to the Clean Water Act – its intention is to manage watersheds to improve water quality by managing non-point source pollution. If this amendment goes through it may be a good source of federal dollars that could help improve water quality at federal lakes. Also, TEA 21, the amended ISTEA, is allowing an increase in motor boat access, a potential pollution problem at lakes. Recreation should be included in management plans as an operating principle.

Robin Knox suggested that the Commissioners look at allowing projects at federal areas be matched with federal funds. Presently this isn't allowed, therefore project operators such as locals and counties cannot even afford the money match requirements.

Laurie Mathews asked if mitigation banking was allowed at Army Corps projects. She thought that it wasn't. If it isn't allowed, a change in Army Corps policy to allow for mitigation banking would be good.

Mark Burget said that species are declining mainly due to three factors, water quality and non-native species and modified hydrology. He recommended that science be included as a priority to management plans.

Tom Strickland asked **how environmental concerns are managed at Cherry Creek State Park.**

Carolyn Armstrong replied saying there are a great deal of scientific studies on water quality and phosphorus levels at the lake, but there are still no good answers to resolving the issues. Many of the scientists ask Cherry Creek employees for their expertise in water quality testing, stating that the employees are really the experts. Colorado State Parks does environmental assessments with

each parks management plan.

Tom Strickland asked **about a system-wide process regarding management planning.**

Mark Burget said that too much planning goes on after the fact (i.e. Upper Colorado River Basin now getting help after it was polluted). An expensive process to fix afterwards, versus plan ahead of time. Having a planning obligation would help with this area.

Pat Teegarden gave an example of how Las Vegas energy demands have a direct effect on the water flows/releases. Need to bring the traditional water users to the table in the discussions of water quality and use. Recreation is not a priority in the western US states.

Rick Marlowe further explained that irrigation has always been the number one priority out west. The big questions still remain as to the effects on drinking water and the increasing population growth.

Tom Strickland asked **what issues/problems are there with multiple users on these lakes?**

Amy Shonstrom said that multiple uses and strategies for managing is a lake by lake decision.

Rick Mueller discussed the difficult job of managing the lake for use by multiple, and sometimes conflicting groups of users and giving each group a equitable piece of the pie.

Carolyn Armstrong said that we need more areas to recreate. Cherry Creek is at capacity every weekend in the summer and cannot handle any more.

Tom Strickland said that the Study may be able to look at federal lakes around the nation that are not well developed to help increase recreation areas.

Laurie Mathews said trails around lakes is another recreation need.

Tom Strickland asked if there are ways to privatize some of these recreation needs at federal lakes.

Carolyn Armstrong said one way to do this is to do outreach to the nearby lake communities and ask for help in raising money for specific needs – trails, marinas, land acquisition, etc.

Dave Wahus mentioned that fact that 97% of federal lakes are close to an urban area (within 50 miles).

Robin Knox brought up the need to improve facilities, campground, and roads to encourage users to go to under-developed federal lakes.

Tom Strickland said he wasn't sure if users wouldn't go to lakes that were primitively developed and/or needed repair. He sighted that example of Lake Mead where campground sites were primitive and many of them in need of a great deal of repair but the campgrounds were still at capacity.

Question 4 “What legislation, regulations or policies limit recreation opportunities?”

Participants responded as follows:

Tom Strickland asked if legislative changes should be made such as adding clean lakes to the Clean Water Act.

Rick Marlowe thought this would be a good idea to help with the water quality issues.

Pat Teegarden told participants that the EPA water quality experts were very willing to help any agency with water quality issues, and suggested calling them.

Laurie Mathews suggested that partnership agreements be broadened to include natural resource management.

Mark Reddinger suggested lakes add user fees and/or raise the fees.

Tom Strickland mentioned that this Lakes Study could recommend a type of oversight like that of the National Scenic Byways designation program. This would be good for marketing, but probably limited to only marketing benefits. Such as designation wouldn't really fix the “burning” problems as discussed in the workshop today.

Dave Wahus told participants that this workshop minutes as well as all other information related to the Lakes Study is available on the internet at: www.doi.gov/nrls.

**THE NATIONAL RECREATION LAKES STUDY COMMISSION
WORKSHOP
HELD IN SACRAMENTO, CALIFORNIA ON
OCTOBER 21, 1998**

The workshop was hosted by Commissioner Rick Cronk, and facilitated by staff Deputy Director, Bruce Brown. Commission Chairman, Bob Armstrong was in attendance to listen to concerns and observe proceedings. Karen Barnette, US Forest Service, and Eric Natti, Bureau of Reclamation, recorded.

Workshop invitee's participated in "round table" discussions and represented broad diverse recreation and non-recreation interests (attendance list attached). The discussions were focused on six fundamental questions. Answers to the questions will be used to help guide the Commission in it's work to make recommendations to Congress and the President. The Commissioners charge was "to review the current and anticipated demand for recreation opportunities at Federally-managed man-made lakes and reservoirs" and "to develop alternatives for enhanced recreational use of such facilities."

Mr. Cronk provided opening remarks and explained the need and importance to identify and understand the broad spectrum of interests associated with Federally-managed man-lakes and reservoirs. Without the input from diverse interests it would be difficult to make meaningful recommendations. Mr. Brown provided an overview as to the background leading up to the creation of the Commission, it's mission and goals, accomplishments to date and goals in the near future.

Following participant self introductions, the group began the process of expressing ideas and concerns within the framework of the six questions. Key points were captured on flip charts and posted for all to evaluate. Following the discussion period, participants were each given four votes per question and were asked to identify their top concerns. These concerns are presented below.

The six fundamental questions included:

1. What Are the Major Recreation Needs at Federal Lakes ?
2. How do you recommend recreation be paid for? (Development, replacement, mitigation, operation and maintenance)
3. What legislation, regulations or policies limit recreation opportunities?
4. How can above dam and below dam recreation activities both be enhanced at the same time?
5. What kinds of partnerships can provide for and manage recreation facilities and services? What can be done to increase partnership successes?
6. What are the most important environmental values associated with Federal lakes that need special management actions? How can those actions be provided?

The top answers to each question are:

Question No. 1 - What Are the Major Recreation Needs at Federal Lakes ?

- 1). Recognize and respond to changing dynamics - i.e., population, new technology, shift in demographics, aging population, flexible planning strategies (shorter planning cycles),...
- 2). Know and understand recreation users needs - managers need to be flexible and adaptable to meet emerging uses and demand.
- 3). Assure that diverse recreation opportunities are adequately provided (within the capability of resource values).
- 4). Recognize and provide for use areas that consider competing needs - to ensure safety, family values, time and activity separation, zones, e.g., controlled water skiing, personnel water craft free zones,...

Question No. 2 - How do you recommend recreation be paid for? (Development, replacement, mitigation, operation and maintenance)

- 1). Greater involvement by clubs and private non-profit organizations, e.g., such groups usually represent specific interests and may be in the best position to provide the best service at a reasonable cost.
- 2). Private/Public partnerships to provide needed recreation facilities and services (on and off the Federal estate).
- 3). When project operations reduce recreation revenues, other beneficiaries should offset - examine the cost-benefit relationships.
- 4). Broader agency use of recreation fees to meet costs, e.g., fee demo programs to include BOR, TVA, BIA.
- 5). Lake status (regionally vs National important lakes) may affect who bears the cost of recreation enhancements.

Question No. 3 - What legislation, regulations or policies limit recreation opportunities?

- 1). Legislative reform is needed that will encourage Federal, State, local, private and non- profit partnerships.
- 2). Broader coordination of cause and effect created by legislation/regulations - legislation/regulation to correct one problem can seriously impact recreation, e.g., clean burning fuel to meet air quality standards causes water pollution (MBTE).
- 3). Develop policies that coordinate water uses that enhance recreation without diminishing other uses.
- 3). Consistent National regulations that provide guidance to local managers.

- 4). Ensuring environmental threats to Federal lakes must be understood and addressed.
- 5). Federal agencies must be responsible in implementing Federal mandates.

Question No. 4 - How can above dam and below dam recreation activities both be enhanced at the same time?

- 1). Federal lake planning should be at the watershed level, recognize and consider above and below dam uses as part of the planning process.
- 2). Greater emphasis should be placed on education to promote greater understanding of Federal lakes as a part of a watershed system.
- 3). Enhance communication between users and use values in a proactive manner for greater understanding - alternative may be litigation that favors no one.

Question No. 5 - What kinds of partnerships can provide for and manage recreation facilities and services? What can be done to increase partnership successes?

- 1). To increase partnership success, agencies are encouraged to employ full time coordinators.
- 2). Look to partnerships to reduce costs, provide diverse opportunities, educate users, and gain better acceptance in the community.
- 3). Consider partnership that provide revenues that reinvest in recreation facilities and services.
- 4). Private investment partnerships need to meet demand and return a reasonable profit.
- 5). Consistent partnership guidelines (principles) that apply to all Federal agencies.

6. What are the most important environmental values associated with Federal lakes that need special management actions? How can those actions be provided?

- 1). Federal lake managers must maintain water quality standards - need to know threats to water quality by understanding the watershed and cooperating with partners.
- 2). Federal lakes should not be managed for all recreation purposes - dedicate some lakes to low impact activities that better protect environmental values.
- 3). Adopt a watershed approach to maintain environmental standards - above and below dam.
- 4). Must recognize and address environmental impacts resulting in changes in recreation uses.

The National Recreation Lakes Study Commission web page is: www.doi.gov/nrls

Attachment

Attendees of the National Recreation Lakes Study Commission Workshop in Sacramento, California, on October 21, 1998

White, Clarence (Butch)
President, Lake Berryessa Resort Owners
Association

Thayer, Rob
Univ. CA, Davis, Dept. Of Env. Design

Kennedy, Bruce
California Parks and Recreation

Sanford, Roland
Solano County Water Agency

Huss, Vince
Pres., Calif. Travel and Parks Assoc.

Chauncey, Chris
Sen. Mike Thompson's Office

Geyer, Sherry
Law Firm of Brand, Farral and Boxbaum
Representing Metropolitan Water Dist. LA, CA.

Fleming, Gene
Calif. Dept. Of Fish and Game

French, David
Regional Council of Rural Counties

Guthrie, Roger Dr.
CA. St. Univ., Dept. Of Recreation Mgmt.
& Parks

Stumbaugh, Gean
American Water Ski Assoc.

McPherson, Chuck
American Water Ski Assoc.

Dowd, Frank
Calif. Dept. Of Boating & Waterways

LeFlore, Richard
American River District, State Parks

**The National Recreation Lakes Study Commission Workshop
Held in Tulsa, Oklahoma
October 26, 1998**

Welcome and Opening Remarks by the Honorable M. Susan Savage, Mayor, City of Tulsa. Introductions and recognition of Darrell Gilbert, State Representative; Chief Joe Byrd, Cherokee Nation of Oklahoma; Representatives from the Offices of U.S. Senator Don Nickles, U.S. Representative Steve Largent, and U.S. Senator Tom Coburn; and National Recreation Lakes Study Staff member, Jim Gasser.

Mayor Savage reviewed the briefing package explaining the mission the National Recreation Lakes Study Commission and its goals. Jim Gasser gave an overview of the National Recreation Lakes Commission Study process.

Prior to the meeting, five discussion questions had been sent to the guests. (See last page for guest list). Mayor Savage encouraged attendees to relate concerns, ideas, problems and solutions in an open forum.

The first speaker was Jerry Brabander, United States Fish and Wildlife Service. He explained that Federal lakes needed more funds for recreation, infrastructure and enhancement of mitigation land surrounding the lakes. Private and public partnerships could be formed between landowners, whose property is inundated by flooding. The Wildlife Commission could manage the flood-prone areas. He gave an example of such partnership between the City of Tulsa and Lake Eucha. He mentioned that more money is needed to implement management plans which are already in place.

Kim Erickson, Chief of Fisheries, Oklahoma Department of Wildlife Conservation stated that fishing and boating access routes needed to be improved. Roads have deteriorating surfaces with ruts, and narrow boat ramps make access difficult. Repairs are funded by Federal grant money requiring matching funds. Sources of income include sales of hunting/fishing permits. He would like to see sport fish restoration and implementation through the Wallop-Breaux Program. The law states that a minimum of 15% of the funds can be provided for lake access. He would like to see: two lane boat ramps, launching docks that are disabled accessible, fish cleaning system for environmentally safe disposition and expand bank fishing access. Mr. Erickson believes the needs can be met by matching monies, using a hunting & fishing sales tax.

Mr. Erickson stated that good water quality must be maintained and inflows that affect the environment must be monitored. He requested that the Commission look at the economics of fishing, a \$22 million dollar business.

Herb Beattie, Trout Unlimited had concerns in the decline of tail water fishing. Generation schedules on reservoirs are based on contracts with electric cooperatives and not considerate of wildlife and fish survival downstream. He asked for reservoir generation schedules to be more responsive to environmental issues. He credited Senator Nichols for wildlife preservation and

water quality improvements.

Steve Berendzen, Sequoyah National Wildlife Refuge, stated that one major recreation and infrastructure need centered on improvements to the refuge system. He felt that it was important to superimpose the refuge system on Corps lakes and to promote wildlife observation. He noted that it is possible to maintain wildlife integrity and promote education, observation and photography. Mayor Savage asked what tools would be needed to enhance the program. Mr. Berendzen responded that public education about dangerous species like zebra mussels would lead to a better understanding of the issues around water quality.

Bud Stuart, Kerr Navigational Waterway; Muskogee, Oklahoma mentioned a concern about lakeshore management. He contended that Federal lakes' managers should welcome development. Grand Lake is an excellent example of a developed lake area. A plan could be devised to ensure that development does not have to go through the elaborate process set up by the Corps of Engineers. He believes fewer mandated controls and less red tape would produce more development. He would like to see a more balanced representation of residential, commercial and protected water interests. Mr. Stuart recommended diversity of recreational activities at Federal lakes. Lake Eufala has only one half of one percent of the number of private docks that are permitted.

Bruce Martin, Pawnee County Economic Development Foundation suggested there should be better coordination of economic development initiatives in and around access roads and main thoroughfares. The Pawnee County Economic Development Foundation can get monies to improve and maintain these access roads. His group could collaborate with economic development foundations to attract private institutions which could enhance lake areas.

The next speaker was Pete Gibson from the U.S. Corps of Engineers who had thought that the meeting would be a brainstorming session so he put together responses from his colleagues. While his was a national organization, he felt it was important to regionalize issues. There are overlapping agencies and too much bureaucracy which is frustrating. He felt that each area should be able to develop its own solutions to the conflicting demands of recreation, flood control and hydroelectric power. He felt that the structures were deteriorating and that there was not enough money to fix them, what funds did exist were spread too thinly.

Mayor Savage noted that he shouldn't apologize for his comments, they echoed those made by his headquarters counterpart, Darrell Lewis.

Mr. Gibson continued that when the lakes were built, there was no thought given to logistics or maintenance. His group was trying to create strategic plans based on use. However, their camping facilities had been built for people in tents and pop-up campers not for the 50 foot Winnibagos which come now and require high amperage electricity. With the Golden Age discount, the entrance fee collected of about \$8.00 barely covers the cost of the electricity through the hook up, far less the upkeep of the facility. When they review the plans for new bath houses, they now consider whether occupants of large campers even need public showers, and that perhaps their resources should be channeled elsewhere.

Mr. Gibson noted that Corps of Engineers' lakes usually had wonderful roads but this was no longer the case. They needed comprehensive visitor use pattern studies. He thought that the new national reservation system would help provide some of the data.

As for shore erosion, he felt that they could easily spend \$30 million to protect the existing lakes from erosion. In response to the development of Grand Lake versus Lake Gibson, he noted that Grand Lake rises 5 feet in flood, while lake Fort Gibson rises 27 feet which can extend over a long distance in that part of Oklahoma.

He noted that in Kansas a \$40,000 bath house was being built by volunteers and thought that this was a good model. Mr. Gibson remarked that entrance fees are collected but not retained at the site. It would be nice, he said, to see some sort of reflection of your popularity assessed in budgeting. Mayor Savage agreed that there is not much incentive in the existing fee system.

Mr. Gibson responded that the very handling of money was a problem since it was so time-consuming. Mayor Savage remarked that perhaps the auditing could be handled elsewhere.

Derek Smithee, Oklahoma Water Resource Board, Environmental Quality suggested there should be a clearinghouse where all information about water quality can be distributed. This need was illustrated during the recent public scare about Primary Amoebic Meningitis (PAN) after the death of a child. The public perceived PAN as a public health threat and State and national agencies fielded hundreds of calls with different answers.

Mr. Smithee noted that there was no longer funding in the Clean Water Act earmarked for lakes. Funds available in the early '90s have vanished. He strongly recommended the suggestion to regionalize or categorize area lakes. Currently, reservoir lakes, natural lakes, and both deep and shallow lakes are grouped together. By categorizing them, agency representatives could maximize funding and increase each lake's potential.

He also remarked that while recreational users do not pay at the same rate as power users, consideration should be given to both users.

Gene Reeves representing Southwestern Power Administration spoke on the financial opportunities for power companies and also for development and recreational users. He noted that recreation users should pay for lake benefits. Improvements and enhancements should be supported by both power users and recreationalists. The pools or specific water players in a lake could be purchased by user-groups who wanted to fish seasonal pools.

Herb Beattie, Trout Unlimited, asked why water was being given away for electricity and subsidizing irrigation to the detriment of the natural flow of water, which benefits fish and invertebrates living downstream. Mr. Gibson acknowledged that differing and conflicting needs must be met. For example, there are so many groups who are involved in monitoring water pollution; DEQ, Lake Patrol, and that for the Corps water quality was a critical issue. If the water is clear and attractive there are many more recreational users. Also if the mineral content is high, the water cannot be used effectively for electricity.

The next speaker was John Young representing the City of Edmond, OK. He thanked the Corps for their help at Lake Arcadia which generates \$500,000 per year. Their budget is not tied to any State or Federal funding and so they are challenged to be business-minded. For example, they were considering raising the annual pass from \$50 to \$80. He was not impressed by the plan to run the facilities at a break-even basis, but thought profit should be generated. He said visitors would pay for activities and while they did have bird watching and that was fine, he could get campers to pay for sand castle contests, volleyball, and rock painting. In Edmond, they design around wants not needs. If they provide 50-ampere service for large campers then they should charge \$30 per night. His group had raised fees for their busy days, Friday, Saturday and Sunday. It was demand pricing.

Dick Barton from the Skiatook Lake Marina explained that taxpayers had purchased the land and were paying for it so they shouldn't be charged again to use it. If it costs \$1.5M to operate the lake and the lake generates \$19 million then people are not happy paying those high fees. They do not want to support the Department of Defense, especially since there has been a 15% cut back, someone was making the money. Too many different groups were monitoring water purity. He thought they should put dye in boat heads to discover who was polluting.

Ted Coombs from Southwest Power Resources spoke next on behalf of power customers. He brought a report which he had prepared several years ago about this issue, a copy of which was made available. Southwest Power generates electricity at 24 Corps dams, 8 of which are in Oklahoma. He noted that the biggest problem is the lack of funds for recreation and encouraged looking at financial solutions. The leasing problems discourage developers.

In Tennessee, two Senators allowed developers to build golf courses and housing on lakes by having them declared surplus property. He presented a study he had written in 1990 about how to leverage Federal resources in this manner and contended that many of the ideas are still valid.

Mr. Coombs felt that was not a reasonable proposal to turn the dams over to the states because the states could not afford to run them. However, many groups could work together like the Department of Corrections women who answer information calls about State parks. There should be one website with information about both private and public tourism opportunities, the hotels, marinas, Corps facilities, community activities, restaurants—all with the ability to make reservations.

He had brought a copy of the 1998 Omnibus Bill in which he noted that South Dakota had been allowed to mitigate flooded lands, with the help of two tribes. All the land above the flood plain was handed over to the State or tribes.

Mr. Coombs reviewed the ideas behind the construction of the dams in Roosevelt's time, during which it was asserted that hydroelectricity created by the Federal government could not be the source of profit. While Southwest Resources sells the power to rural cooperatives and municipalities, it is not at a profit. It would require a change in the law to make a profit.

The use of tail water to improve fishing is not viable economically for those towns and rural

organizations. The sellers of electricity must recapture 100% costs of its generation. The Corps collects only about one third of their costs for operations and maintenance. However, hydropower is vendible. There is enough water he said to provide for all the competing uses.

Chief Joe Byrd of the Cherokee Nation spoke next, mentioning that 14 Oklahoma counties lie within the Cherokee Nation. He spoke as a fly fisherman who has noticed that the levels of his favorite stream dropped from 15 feet in July/August to maybe 7 feet in the spring. He encouraged the participants to work together and communicate effectively.

Chief Byrd announced, that in partnership with the Corps, the tribe maintains 1,100 acres of park land. Prior to the signing of the Memorandum of Understanding it was a dangerous place, now it is safe and attractive. When a group composed of city, State and Federal partners met to discuss a marina for the City of Muskogee it was discovered that the land was owned by the Cherokee Nation. By including the Nation in the agreements, the project will go forward.

He pointed out that even as Chief, he buys fishing licenses and pays taxes. Chief Byrd also noted that when matching funds for Federal dollars were needed, that tribal resources should be considered for the match. The Cherokee Nation has spent \$2.5 million to stay in compliance with EPA standards, more than any other tribe. Chief Byrd's philosophy is that we all benefit from working together. There are 37 tribes in Oklahoma and 198,000 members of the Cherokee Nation in Oklahoma.

The Mayor noted that the poultry issue in the Oklahoma legislature had had an impact on Cherokee Nation members who were chicken farmers in Eastern Oklahoma. Chief Byrd remarked that while the Governor was able to declare the western part of the State a disaster area, so that funds would be available to assist farmers, the eastern part was not included in the disaster declaration. In his capacity as tribal Chief Byrd was able to declare the eastern part of the state a disaster area, which helped his tribal members.

Kris Mereck from Tourism Oklahoma spoke next about the active partnership her agency has with the Corps. Tourism in Oklahoma oversees 50 State parks and 5 resorts catering to 16 million visitors a year. She reiterated that they have great facilities but not sufficient funding to maintain them. Some areas had exceeded 50% of the "life expectancy" and that raised the question of whether it was economically sound to continue to maintain at the same level. This long-range thinking is important since the allocation of resources is so critical. Tourism is aware that it is a polluter but lacks funds to renovate sewer systems. There is no Federal match for campsites and so privatization was still a very viable option.

In Lake Texoma they run the facility but do not own the land.

Gene Wheeler, Trout Unlimited, noted that the trout fishing brought \$250 million a year to the White River area of Arkansas and he felt that Oklahoma was not using its dams effectively to generate similar sports dollars. Mr. Reeves, Southwest Power pointed out that such practices cost money. Mr. Wheeler responded that there was a responsibility to maintain the integrity of the river. The Mayor interjected that throughout her work on the Commission the group had wrestled

with the problems of conflicting users needs.

Mr. Wheeler explained the “W” weir would attract visitors and save the fish. Such a weir would help create oxygenated water which promotes healthy fish. None of this work would cost the power plan money.

Mayor Savage introduced Sharon Keasler from Senator Nickles’s Office. Ms. Keasler mentioned how helpful this sort of forum was to the Senator and his staff. Often the only voices they hear are from the Lake Associations and this afternoons forum had provided a wider overview of the issues. Most of the problems were not considered when the dams were built originally and she encouraged the group to keep meeting.

The Mayor wrapped up the event by thanking all the participants for their contributions to the meeting. She was pleased that representatives from such a wide variety of interests had come to speak. From Federal agencies, tourism, regulators, tribes, hydroelectric power developers, health, and recreation, all had given her an excellent cross section of their views by staying on point. The Commission has a lot to do in a short time, she noted. She thanked everyone for their interest and participation.

**The National Recreation Lakes Study Workshop
Little Rock, Arkansas
October 28, 1998**

Richard W. Davies, Commission Vice Chairman, briefly explained why the participants were asked to attend the workshop. Mr. Davies gave an overview of how the commission was established by Congress to study the increasing use of federal lakes for recreation and to make recommendations on how to deal with it in conjunction with other project purposes such as navigation, flood control, water supply, and hydropower. Mr. Davies explained that the purpose of the workshop is to try to get a consensus on the best ideas or the most workable solutions that need to be considered by the Commission. The Commission will then make a report to the Congress and President during the next session of Congress. All of the Commissioners are holding meetings around the country discussing these same issues.

Mr. Davies introduced Bruce Brown, Deputy Staff Director of the National Recreational Lakes Study Commission, the facilitator for the meeting. He reported that he and Bruce Brown had also visited with the State Fishery Chiefs at the Bass Masters Classic in North Carolina to get their perspective on the situation.

Mr. Brown gave an overview of the handouts the participants received outlining the Commission's goals, a list of the Commissioners and Staff, a fact sheet on recreation in America, the accomplishments to-date of the Commission, and the economic impact of recreation associated with federal man-made lakes in the United States.

Mr. Brown proceeded to generate comments from the workshop participants regarding the following questions. At the end of the discussion period, Mr. Brown asked the participants to rate their top four priorities, per question. The following is a list of suggested solutions in priority order:

Question 1: What are the major recreation needs at Federal lakes?

Top 5 Solutions

1. Update/modify existing facilities and utilities
2. Better amenities and facilities (golf, resorts, trails, etc.)
3. Watershed quality management educational programs
4. Maintain water quality
5. Water accesses i.e.: boat ramps and lots

Other Solutions

6. Facilities adaptable to varying water levels
7. Appropriate fisheries
8. Highway accesses
9. Funding
10. Increase capacity

11. Keep existing areas open
12. ADA accessibility
13. Public Information
14. Comfort Stations
15. Signage
16. Day use areas
17. Adequate personnel
18. Safety of water levels

Question 2: How do you recommend recreation be paid for? (development, replacement, mitigation, operation and maintenance)

Top 5 Solutions

1. Retain all recreation fees obtained without offset (including all fees)
2. Increase Federal budgets
3. Improve operational efficiency without offset
4. Establish new fees where appropriate
5. Update fees and leases to market rate (dedicated to water recreation)

Other Solutions

6. Funding from private sector partners (concessions)
7. Consistent standardized user fees
8. Beneficial user pay
9. Greater portion of LWCF to water based recreation
10. % of sales tax i.e.: water recreation stamp (volunteer)
11. Do away with Senior citizen discounts
12. Loan or incentive funds (federal)

Question 3: What legislation, regulations or policies limit recreation opportunities?

Top 5 Solutions

1. Eliminate the prohibition of federal/federal match on federal land
2. Make recreation an equal project purpose
3. More flexible regulations/policies update to reduce bureaucracy
4. Empowerment at the local level
5. COE Organic Act for recreation mission

Other Solutions

6. More consideration of recreation in project operations (water levels above and below the dam)
7. Strengthening existing laws to protect watershed
8. Broad-based market policy
9. Regulations for conflicting recreation users
10. Eliminate partnership cost share requirements
11. More consistency across all levels of government

12. Better shoreline enhancement guidelines

Question 4: How can above dam and below dam recreation activities both be enhanced at the same time?

Top 5 Solutions

1. Use Comprehensive management planning process in making decisions
2. Involve customers in development of water control plan
3. Improve water quality management practices
4. Better publicize or establish release schedules
5. Use ecological considerations as basis for recreational management decisions

Other Solutions

6. Minimal flows of dissolved oxygen
7. Maintain historic water environment
8. Make above dam recreation more accessible at varying water levels
9. Special consideration/operations during peak recreation periods
10. Increase federal ownership downstream
11. Find and copy good examples

Question 5: What kinds of partnerships can provide for and manage recreation facilities and services? What can be done to increase partnership successes?

Top 5 Solutions

1. Use more industry council/advisory boards to the decision making process (mutual stake holders)
2. Encourage development of market driven facilities
3. Improve communications to improve and help build better partnerships
4. Encourage local control partnership
5. Standardize partnership guidelines (leasing)

Other Solutions

6. Non-profit partnerships
7. Remain open to all partnerships (all inclusive)
8. Lease terms correspond with business finance requirements
9. Make proposals for use of commercial land easier
10. Partners should be equal
11. Partner with correctional facilities
12. Development of a business marketing plan with stake holder's input

Question 6: What are the most important environmental values associated with Federal lakes that need special management actions? How can those actions be provided?

Top 5 Solutions

1. Point/non-point source pollution within watershed
2. Develop comprehensive watershed management plan partially funded by federal government
3. Improve enforcement of discharge from houseboats
4. Improve phosphorus removal /water quality (point/non-point)
5. Amount and timing of downstream discharge/flow regimes

Other Solutions

6. Increase emphasis on water clarity
7. Impact of over crowding (carrying capacity)
8. Consider scenic values
9. Terrestrial wildlife management plans
10. Support and communicate "clean" programs (clean vessels/clean marinas)
11. Improve fishery's habitats through water level operations
12. Protect threatened and endangered species
13. Federal assistance grant programs to restore lakes
14. Any development must be determined by justification means
15. Maintain water control standards below the dam
16. Exotic vegetation management plan
17. Water temperature and dissolved oxygen
18. Improve communication for existing environmental programs
19. Environmental value best served by removing dams

List of Workshop Participants

Tony Shill, Big Cedar Lodge, Ridgedale, MO
 Ron Dodson, Audubon International, Seakick, NY
 Chip Mason, Silver Dollar City Inc.
 David Kannady, Southwestern Power Administration, Tulsa, Oklahoma
 Jimmy Anderson, Northeast Arkansas Flyfishers, Bay, Arkansas
 Clay K. Crump III, Kirby Landing Marina, Kirby, Arkansas
 Allan J. Mueller, U.S. Fish and Wildlife Services, Conway, Arkansas
 Rodney Baker, Farm Bureau, Little Rock Arkansas
 Steve Cannell, USDA Forest Service, Hot Springs, AR
 Brenda Meeks, Corps of Engineers, Mountain Pine, AR
 Thomas Soerens, Arkansas Water Resource Center U of A, Fayetteville, AR
 Mark Milholland, Corps of Engineers, Mountain Home, AR
 Dale Leggett, Corps of Engineers, Little Rock, AR
 Ricky Bittle, Arkansas Electric Cooperative Corporation, Little Rock, AR
 Chuck Bennett, Arkansas Dept. Pollution Control & Ecology, Little Rock
 Mike Miller, Corps of Engineers, Little Rock
 Ken Foersterling, Corps of Engineers, Branson, MO
 Randal R. Swanson, Port of Kimberling Marina, Kimberling City, MO
 Larry Rider, Arkansas Game and Fish Commission, Little Rock, AR
 Paul W. Revis, Arkansas Waterways Commission, Little Rock, AR
 Lee Howard, Millwood State Park, Ashdown, AR
 Lance Peacock, Nature Conservancy, Little Rock, AR
 John Yates, Congressman Vic Snyder's Office, Little Rock
 Bill Barnes, Mountain Harbor Resort, Mt. Ida, AR

Bob Griffith, 101 Boat Dock, Mountain Home, AR
Roger Giddings, Hot Springs National Park, Hot Springs, AR
Mark Webore, Little Rock City Parks, Little Rock, AR
Montine McNulty, Arkansas Hospitality Association, Little Rock, AR
Bryan Kellar, Arkansas Dept. of Parks and Tourism, Little Rock, AR

NATIONAL RECREATION LAKES STUDY WORKSHOP
Kenlake State Park
Aurora, Kentucky
November 16, 1998

The workshop was organized by the Kentucky Lake Vacationland Lodging Association and was hosted by Commissioner Bob Armstrong. The workshop was facilitated by staff member Bob Curtis.

Commissioner Armstrong was introduced to the participants and provided the opening remarks. Commissioner Armstrong explained the background leading to the formation of the nine-member commission, reviewed the Commission's mission and goals, accomplishments to date, and the process for completing the Commission's work.

Mr. Armstrong explained that the Commissioners are instructed "to review the current and anticipated demand for recreational opportunities at Federally-managed manmade lakes and reservoirs" and "to develop alternatives for enhanced recreational use of such facilities."

Mr. Curtis explained the background related to the public workshops that have been held to date and explained that all of the public comments would be carefully reviewed and would be utilized by the Commission in formulating their recommendations. Mr. Curtis provided an explanation of the handout materials and provided information regarding the NRLS Web Site and the Commission mailing address so that participants could provide additional comments.

Sixty-six attendees (list attached) participated in the workshop which addressed the following questions:

10. What are the major recreation needs at Federal lakes?
11. How do you recommend recreation be paid for? (Development, replacement, mitigation, operation and maintenance).
12. What legislation, regulations or policies limit recreation opportunities?
13. How can above dam and below dam recreation activities both be enhanced at the same time?
14. What kinds of partnerships can provide for and manage recreation facilities and services? What can be done to increase partnership successes?
15. What are the most important environmental values associated with Federal lakes that need special management actions? How can those actions be provided?

Key points were captured on flip charts regarding each question. Time constraints prevented the participants from reaching a consensus or from ranking the comments provided. Therefore, the following notes represent the participants' comments as they were recorded.

QUESTION 1.**What are the major recreation needs at Federal lakes?****ANSWER:**

1. More stable water levels the year-round.
2. Freedom to access lakes without user fees.
3. Enhanced fishing - better information about fish and habitat.
4. Better management of aquatic plants to create fish habitat.
5. Better patrols to prevent dumping (pollution) of marine sewage and trash.
6. Manage the public lands to protect them from development.
7. Have more quiet areas/non-motorized areas and regulation of jet skis.
- 8.a. Do not develop public land for commercial development
 - b. Do not develop land through public/private partnerships.
 - c. Do not develop through profit-oriented corporations.
9. Agencies should provide more technical assistance to resort owners.
10. No fee demo program - no fees at all.
11. Don't allow activities along lake shoreline to cause damaging erosion and sedimentation.

QUESTION 2.**How do you recommend recreation be paid for? (Development, replacement, mitigation, operation and maintenance).****ANSWER:**

1. If not sufficient funds to manage property, return it to owners.
2. Federal government can stay out of way - therefore there will be no cost.
3. Develop partnerships with private/non-profit organizations.
4. Use in-kind labor.
5. Federal government needs better management of existing funds, more efficient use of existing funds.
6. Let local funds meet the needs - county, local community.
7. Federal government could provide funds to local governments to manage facilities.
8. Money collected locally by Federal agencies should be used for management in local area.
9. Use non-profit organizations to help fund facilities management.
10. Continue "fee demonstration" type strategy for funding.
11. Federal government should not fund through public/private partnerships. There will be too much pressure for development. Private entity will exert pressure for more development - causes loss of public land and free access
12. Federal agencies need to institute budget accountability.
13. Federal agencies should address public needs - but private partnerships will only want to address needs/opportunity that have profit possibility.

QUESTION 3.

What legislation, regulations or policies limit recreation opportunities?

ANSWER:

1. Need policy on rules to establish quiet areas on the lakes.
2. Lake water surface zoning for specific uses may be necessary.
3. Do we need more regulations? Look very closely to see if any are needed. Each individual lake is different. Recognize individual lake characteristics and differences.
4. Address lake level policy - need higher lake levels over the entire recreation season.
5. What goes on in a watershed has more impact on the lake than any lake specific management policy. Need watershed management policy.
6. Do not establish legislation that could limit access based on “ability to pay.”
7. Prohibit (by legislation) any limiting of access based on “ability to pay.”

QUESTION 4.

How can above dam and below dam recreation activities both be enhanced at the same time?

ANSWER:

1. Reduced water releases to keep lakes higher during recreation season could reduce water for navigation below dams.
2. Higher lake levels could adversely affect tailwater fishing.
3. Reduced flows through dams could increase pollution and reduce water quality downstream.
4. Look at possibility of whitewater course beside new locks when locks need replacement.

QUESTION 5.

What kinds of partnerships can provide for and manage recreation facilities and services? What can be done to increase partnership successes?

ANSWER:

1. Partnerships with non-profit organizations.
2. County/local government partnerships.
3. University partnerships.
1. Trust funds established by private donations for specific purposes.
2. “Teaming with Wildlife” - national tax on certain goods (like Pittman- Robertson/Dingle-Johnson).
3. Question is - who is willing to take the risk with their funds?

QUESTION 6.

What are the most important environmental values associated with Federal lakes that

need special management actions? How can those actions be provided?**ANSWER:**

1. Water quality - need to address impacts to lake water quality.
2. Address activities within the lake watershed that feeds the lake - especially from agricultural activity (chicken/hogs), (multinational corporations).
3. Better programs for marina pumpouts - (marine sewage disposal systems).
4. Need more aquatic plants back in the lake to help fishing and improve water quality.
5. Control run-off from lands adjacent to lakes.
6. Better management of forest practices within a lake's watershed.
7. Better reforestation after harvesting within a lake's watershed.
8. Limit logging to outside the lakes watershed - (commercial logging).
9. Do not site recreational activities that can cause run-off or pollution adjacent to the lakeshore, i.e., ATVs.
10. Water releases at some dams can cause super saturation of O_2 and can cause fish kills downstream. Needs to be addressed.

ATTENDEES
THE NATIONAL RECREATION LAKES STUDY COMMISSION WORKSHOP
HELD AT KENLAKE STATE PARK, AURORA, KENTUCKY,
ON NOVEMBER 16, 1998

NAME	CITY	REPRESENTING
Dick Douglas	Benton, Ky	KLVLA
Corinne Whitehead	Benton, Ky	CHC & KYRC
Ernest Whitehead	Benton, Ky	CHC
Steve & Debra Hardy	Cadiz, Ky	Court Reporters
Paul & Mary Erwin	Murray, Ky	
Bill & Dee Beasley	Gilbertsville, Ky	KLVLA
Ann & Steve Brown	Murray, Ky	
Marshall & Bobbie Higgins	Murray, Ky	
Bill Licenvier	Benton, Ky	KLVLA
Wes Davis	Gilbertville, Ky	Catfish Kitchen
Ray Meyers	Sportsman's Anchor	
Lynne Meyers	Jonathan Creek, Ky	Resort & Marina
Alsie Golden	Golden Realty	
Florence & George Brazelton	Benton, Ky	
Floyd & Gloria Fitch	Benton, Ky	
Chuck & Sarah Drawbridge	Benton, Ky	Malcolm Creek Resort
Della Oliver		Between the Rivers Hist. Pres.
Jerry D. Collins	Benton, Ky	
Don & Dawn Cowger	Benton, Ky	
Dick Keyser	Benton, Ky	
Shana Parish		Grand Rivers Between the Rivers Historical Preservation Between The Rivers Coalition
Ray Parish		
Tony C. Egbert	Calvert City, Ky	Jackson Purchase Paddlers Assoc.
Paul & Carla Yambert	Murray, Ky	Concept Zero
John Higgins	Murray, Ky	
Bruce Watson	Murray, Ky	Lynhurst Resort
S. P. Warren		KOC
Mark Donham	Brookport, Al	RACE
Kristi Hanson	Brookport, Al	RACE
Tom Higgins	Murray, Ky	
David Nichell	Southland, Ky	NSHF
J. D. Lee	Eddyville, Ky	Lyon Co. Judge/Exec Elect
Kenny Fralicx	Eddyville, Ky	
Tracy Jordan	Smithland, Ky	BTR

Chris Wallace	Cadiz, Ky	
Richard Carlson	Aurora, Ky	
Robert Izerballe	Aurora, Ky	J.A.A.C.
Trish Lofton	Gilbertsville, Ky	Marshall Co. Tourism Com
Robert Strow	Benton, Ky	Marshall County Fiscal Court
Bill Butler	Benton, Ky	Marshall Co. Fiscal Court
Ron Beshears	Benton, Ky	
George Onnybecker	Benton, Ky	KLVLA
Paul Rister	Murray, Ky	Ky. Dept. Fish & Wildlife
Michael Pape w/Congressman Ed Whitfield	Hopkinsville, Ky	
John Lowry	Murray, Ky	
Joe Edd Boyd	Murray, Ky	
Bob Ferrel	Gilbertsville, Ky	Ramada Inn
Mark Fredrick	Murray, Ky	Paradise Resort
Carol & Brad Johnson	Murray, Ky	
Paul Morris	101 Mannis Ln. Benton, Ky	
Dale Freelove	2286 Union Ridge Rd. Benton, Ky	
Allen Erwin	Murray, Ky	
Kark & Julie Weber	11442 Hwy. 68E Benton, Ky 42025	
Kerry Weck	176 Hester Rd. Benton, Ky 42025	
Kim Koenn	Aurora, Ky	Lakeland Resort
Roy Carter	Aurora, Ky	Lakeland Resort

The National Recreation Lakes Study Commission Workshop Held at Partners Outdoors VIII, Lake Buena Vista, FL, on January 4, 1999

The workshop was hosted by Commission Chairman Bob Armstrong and Vice Chairman Richard Davies, assisted by staff Deputy Director, Bruce Brown.

The purpose of the workshop was to allow the participants at Partners Outdoors to provide feedback on the working draft recommendations of the National Recreation Lakes Study. About 30 people attended the workshop representing a cross section of the Federal, State and private sector participants attending Partners Outdoors VIII. The participants were given a list of the 15 recommendations and were asked to vote on the three they wanted to discuss the most.

Starting with the highest priority recommendation, the group was asked to identify the strengths or weaknesses of the recommendations. Time was also provided for participants to offer recommendations not appearing among the 15 described. Answers were recorded on flip charts and transcribed to this report.

Comments on the Draft Recommendations

3. Reduce the recreation facilities maintenance backlog by 10% in each of the next 10 years with additional, appropriated funds.

It was agreed this is a very important recommendation in order to bring the facilities up to standards. It was suggested the standards include a requirement that the level of facilities must meet current and future demand, and those required by the Americans with Disabilities Act. Agencies should carefully inventory their facilities and come up with an accurate assessment. It was felt the costs could be shared by the involved parties.

As a matter of concern, it was suggested to include language that ties in the provisions of the fee demo program that allows the money collected to be retained at the site to help defray the rehabilitation and maintenance costs. There was also a question raised where there is a combination of public and private capital investment in a facility would the Federal investment have to be zeroed out by the private investor.

1. Revise the Recreational Fees Demonstration Program to include the Bureau of Reclamation and the Corps of Engineers and allow fee revenues to be retained at the management unit where collected and used for operations and maintenance costs, without appropriation and without offsetting appropriations.

Some thought the exclusion was due to a lack of cooperation between congressional oversight committees. It was suggested that rehabilitation be emphasized over operation and maintenance. They want to see clear guidance on the use of the revenues. It was felt that concessions revenues should be made available as well.

13. Encourage private recreation interest groups to organize to assist the Federal government in raising awareness of recreation lakes and raising funds for the support of recreation lake improvements.

Commentors felt this recommendation will require a major awareness building effort that may need an outside contractors assistance. It was suggested to hold a biannual conference on recreation lakes. In addition to lake improvements, it was stressed to support lake and below dam activities, services and programs. One participant suggested that individual lake organizations be created to assist in the awareness and support of specific lakes.

2. Change Bureau of Reclamation and Corps of Engineers policies to allow them to cost-share with their non-Federal governmental partners for operations, maintenance and rehabilitation of recreation facilities developed in conjunction with States and local governments.

One suggestion was to expand the recommendation to require the revision of P.L. 89-72 too more strongly encourage cost-sharing provisions for operations and maintenance. Many agreed it was a big disadvantage when a non-Federal entity turns management of an area back to the Federal agency of jurisdiction, especially when the agency does not have the resources to manage the area. A warning was issued however, that putting money in operation and maintenance may be a black hole.

10. Establish a common and consistent water-related recreation performance measure for all Federal lake management agencies.

It was stressed that quantifiable measures will help accomplish improvements.

15. Establish an interagency Federal lake applied research team to conduct scientific assessments of watershed conditions, lake productivity, and fish and wildlife resources to enhance recreation.

In general there was support for this recommendation. Membership should be broadened to include academia. Such a team could be a clearing house for a lot of information that is gathered but not shared. It was suggested that more emphasis should be placed on all types of recreation, not just fishing, and particularly on downstream recreation activities. At this point it was requested the Commission consider an additional recommendation. The proposed recommendation as submitted is “Opportunities to enhance downstream recreation at Federal dams, including canoeing, kayaking, rafting, fishing and other activities should be considered as integral elements of project operations. Project managers should seek ways to enhance downstream recreation at Federal projects, including opportunities during demonstration projects.”

7. Develop and adopt policies and procedures for commercial recreation activities that are consistent for all Federal lake management agencies.

It was suggested there be a consistent concessions policy and the terms and conditions of the leases are compatible with the extent of investment required to provide quality facilities and be able to make a profit. It was felt the contracting procedures were too onerous and needed

to be more user friendly. Directions should be taken from the Chief Financial Officers Act and the Federal Acquisition Regulations.

4. Earmark a percentage of Wallop/Breaux administrative funds for tribal recreation lake development projects.

This was characterized as a non-starter. There would be too much opposition. Just identify a qualified lake on tribal lands as a demonstration.

6. Commit resources to and establish an interagency Federal Lakes Recreation Leadership Council to coordinate and guide the implementation of the recommendations of the National Recreation Lakes Study.

It was suggested this council include members from outside the Federal government.

8. Apply to the National Partnership for Reinventing Government (NPR) for approval to implement the Commission recommendations in a designated Reinvention Laboratory with lake demonstration projects at selected sites throughout the country.

9. No formal designation of a National Lake system is recommended at this time. Lakes included in the Reinvention Laboratory demonstration projects should be designated as National Recreation Lakes Demonstrations. An evaluation of these demonstration lakes would form the basis of a National system, should that prove desirable.

Some participants felt this was too timid -- that a legislative proposal should be included that would establish a National Recreation Lakes System and let the Congress decide for themselves. The initial designated lakes could act as demonstrations. Technical assistance could be provided to local units of governments that make recommendations or decisions on actions within a watershed.

12. Endorse the implementation of the National Recreational Fisheries Conservation Plan at Federal lakes.

11. Establish regular inter/intra-agency development assignments, exchanges and meetings for Federal lakes' supervisors and staff to enhance expertise and understanding.

Some suggested the training and sharing of information include those outside the Federal government.

5. Restore adequate funding for nonpoint source pollution projects under the Clean Lakes Program.

14. Use the "Federal Activities Inventory Reform Act of 1998" (P.L. 105-270) as a tool to identify opportunities for partnerships with the private sector at Federal lakes.

As a means to alleviate the fear that this effort will result in a labor loss, it was suggested to make contracting a no net loss of personnel or budget.

Other Comments

1. Congress should enact a new Organic Act for the Corps of Engineers and others to place more emphasis on recreation in Federal water management agency missions.
2. There should not be a requirement for States to cost-share Federal monies when the project is on Federal lands and it benefits the general public. An alternative, consideration should also be given to allowing private funds to be used as the State share. It was pointed out that a down side of using W/B funds to build recreation facilities that users could be charged a use fee, is that charging fees must be deferred for some period of time.

**NATIONAL RECREATION LAKES STUDY
LAKE MANAGERS WORKSHOP OF
JANUARY 20-21, 1999**

FINAL REPORT

June 1999

**NATIONAL RECREATION LAKES STUDY
LAKE MANAGERS WORKSHOP OF
JANUARY 20-21, 1999**

FINAL REPORT

by

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A Report Submitted to:

**National Recreation Lakes Study Commission
1951 Constitution Avenue, N.W.
Room 320 SIB
Washington, DC 20240**

under

**Task Order #0110
Contract No. DACW72-94-D-0003**

June 1999

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I. MEETING PURPOSE

The Omnibus Parks and Public Land Management Act of 1996 created a commission to conduct a National Recreation Lakes Study (NRLS) to “review the current and anticipated demand for recreation opportunities at Federally-managed manmade lakes and reservoirs” and “to develop alternatives for enhanced recreational use of such facilities.” The NRLS Commission, over the course of nearly two years, conducted a number of activities such as data collection and public workshops to offer to the President and the Congress recommendations to improve and enhance public facilities on Federal lakes. The Commission developed sixteen recommendations. These draft recommendations are presented in the Commission’s draft report provided in Appendix A.

Before finalizing the draft report for submission, the Commission felt it was important to hear from Federal lake managers representing seven of the agencies that manage these manmade impoundments. The Commission designed a meeting to hear from the lake managers regarding the sixteen recommendations. The distribution of lake managers represented in this meeting is based on the number of Federal lakes managed by the respective agencies as shown in Table I-1 below.

TABLE I-1

LAKE MANAGERS BY AGENCY

Agency	Lakes	Lake Managers
U.S. Army Corps of Engineers (Corps)	30% of lakes	10
Bureau of Reclamation (BOR)	16% of lakes	5
U.S. Forest Service (USFS)	15% of lakes	5
U.S. Fish and Wildlife Service (USFWS)	8% of lakes	3
National Park Service (NPS)	5% of lakes	2
Bureau of Land Management (BLM)	0.1% of lakes	1
Tennessee Valley Authority (TVA)	3% of lakes	2

Each agency designated lake managers that had extensive experience in lake management. A letter of invitation (presented in Appendix B) was sent to the potential participants. Of the total twenty-eight managers shown in Table I-1, twenty-four were able to attend the workshop. The managers met on January 21 and 22, 1999 in Arlington, Texas. A list of those managers who attended is presented in Appendix C. A copy of the draft report was provided to the attendees in advance of the meeting.

II. PROCESS OVERVIEW

The Commission staff worked with Planning and Management Consultants, Ltd. (PMCL) to design the workshop and agenda. The workshop was conducted over a day and half period. The Commission and staff prepared the agenda, invited the lake managers, and arranged the meeting facilities. A copy of the agenda is presented in Appendix D. PMCL was contracted to facilitate and record the meeting, and to provide documentation of the workshop results.

The workshop itself consisted of an introductory plenary session, a breakout session, and a final plenary session. The first plenary session included attending commissioners and participants in an open dialogue of recreation issues. An account of this open dialogue is presented in Chapter III. Dr. Joseph Westphal was keenly aware of the importance of lake manager input during these processes, and wanted to give participants an opportunity to share candid dialogue with Commissioners.

Two breakout groups were conducted to receive lake manager's comments and perspectives regarding the sixteen proposed recommendations. The recommendations with a brief explanation are found in the draft report that is provided in Appendix A. Each breakout group addressed eight of the sixteen recommendations. This allowed the lake managers to cover all sixteen recommendations in the time allotted. Each lake manager considered three basic questions when addressing each recommendation:

1. What value does this recommendation have to you as a lake manager?
2. What value does this recommendation have to the public you serve?
3. How will this recommendation affect you?

Packets of materials were sent to each participant in advance of the workshop which included worksheets introducing these three questions. The participants were encouraged to come to the workshop with specific ideas/responses formed and ready to share.

All lake managers were able to comment further on the sixteen recommendations during the second plenary session which was held on day two of the workshop. During this plenary session participants "voted" on their top four recommendations. The outcome of the vote is presented in Chapter IV. Also during this plenary session, Dr. Joseph Westphal requested that the lake managers comment on the six guiding principles of the NRLS. The guiding principles and comments are presented in Chapter V. These events were followed with recognition of the lake managers' efforts and how they will be incorporated in future reports.

III. DR. JOSEPH WESTPHAL'S DISCUSSION SESSION

As the lake managers began to consider the sixteen recommendations, Dr. Westphal, Assistant Secretary of the Army for Civil Works, took a few moments to ask participants to consider the following idea: if they were authoring the NRLS, what would be the one recommendation above others that they would make? Dr. Westphal stated that he is committed to moving this initiative forward. Highlights from these discussions fall into the following seven categories: funding issues; partnering issues; fee demonstration programs; operations and maintenance (O&M) issues; National Recreation Lake designation comments; additional tools to manage; and miscellaneous items.

FUNDING ISSUES

- “Show me the money.”
- The concept was that most improvement efforts would require additional funding. Tie funding allocations to use (opposed to acres, etc.).
- Even appropriated dollars should have *use* as a major part of the distribution formula.
- Funding for my agency is reasonably good because we can retain fees, however the main challenge is that the population is changing, as well as visitation.
- In the BOR, recreation never makes the budget. When identified as line item the amount of funding needed will not be fulfilled in one lump sum. The funding needs to be in consistent amounts.
- Recreation happens and demand increases whether we put money in or not; only satisfaction changes. That may be why recreation doesn't get funding in big thrusts; satisfaction may not be directly tied to what people would really would like to see at a recreation facility.
- Funding for new facilities should include an attached percentage of return for future O&M requirements.
- There is more than just customer satisfaction to consider. Resources are also changing. Facilities are losing camps, shoreline, etc., because of the lack of funding. Environmental issues also cut into recreation funds.
- Lake manager need to address maintenance backlog but are unable to use money from the Land and Water Conservation Funds. We need to find a vehicle to address this issue.
- Funding is different between agencies (USFS, etc.).
- In the USFS there are criteria for funding requests. These criteria do filter down from project to project. The USFS also has “meaningful measures.”
- As a local manager I know what my base funding will be, even though it is inadequate. If there is no line-item for recreation in the Corps' budget how do recreation funds trickle to management?
- USFS budget requests are based upon quality, even though recreators will come whether we clean the bathrooms or not; that's our standard criteria. As an agency we felt we

needed to do this because our budget allocations were not being made based upon quality.

- In the Corps, recreation monies are not getting to us (field managers).
- Reclamation is different than the NPS. The NPS is in the recreation business – reclamation isn't. Recreation takes low priority in our budget. To add to this, every reclamation project has different language. BOR can't do line items so you work around the verbiage to get recreation items done.

PARTNERING ISSUES

- Public/private partnerships are a good idea provided a standard percentage of revenues generated goes back into the facilities. Also, the public agency should retain ownership of the facility. This is not always the case in all agencies.
- The trend is to hire private concessions. By doing this we price out of existence those who are the growing populace. These private interests will cater to the upper-class interests, leaving the average-class populace with less options. Private concessions look at the bottom-line, which means “average Joe” will not be able to utilize these locations.
- The recreation customer base also shrinks as equipment such as boats continue to get larger.
- Most of the money from marina leases goes into the hands of those other than the Corps.
- Third party leases offer about 10% of gross receipts which goes back into the lake for further improvements.
- Private organizations will come in and help, but they will take the cream of the crop, and leave the rest for us.
- Yes, but private industries don't do this. They instead cater to “upity-up” people to get more fees.
- Interagency relationships are good, but getting stuff done is another issue because of conflicting agency regulations, standards, etc.

FEE DEMONSTRATION PROGRAMS

- The Corps should be allowed to take advantage of recreation fee demo programs. These programs keep money onsite and do not reduce this amount from appropriated funds.
- For major metropolitan areas that have high usage, they seem to have more of an influx of money. Other areas do not. Even in metropolitan areas, fees often cannot cover all the wear and tear of a facility.
- A fee demonstration program is not recommended for areas that don't have a lot of visitation. These programs are not for everyone.
- The USFS can regulate, though this seems to be a double-edged sword. The public knows this, and it expects “cheap” fees.
- The processes involved in looking at private enterprise are not cheap either.
- When fee money would come back to a project, our allocated budget would be taken away. In addition, we have to add the additional cost of collecting those fees.

OPERATIONS AND MAINTENANCE ISSUES

- Maintenance backlog is increasing tremendously. It will soon reach a point at which there will be no fix. It's reaching that point now.
- Not many managers want new development because of existing O&M concerns.
- The issue of maintenance backlog seems to still be a large concern for managers.
- Infrastructure and backlog are also big concerns.
- Every time we build a new facility it means existing ones are maintained at a lower standard. Facility infrastructures need to be brought up to standard, as well as O&M. There needs to be consideration for expansions. The public needs new structures, yet funding can barely fulfill the needs for existing structures.
- A big push is that Corps leadership doesn't like operations. That's the word we are getting in the field. We are told to falsify to show more on maintenance than operations because of it. Then, the next year, we have to change everything back, or make it appear different.

NATIONAL DESIGNATION COMMENTS

- Not sure another national designation would help unless it came with more money.
- We need to provide incentives for local managers to experiment.
- National recognition may create more customer expectation.

ADDITIONAL TOOLS TO MANAGE

- Employment ceilings should be eliminated or adjusted. Currently we cannot even hire above these ceilings, even if we have the money to do so.
- We need to be able to develop in a business-like manner.
- We should have more flexibility to enter into contracts.
- 80 acres maximum permit area keeps USFS from expanding (this is different in various agencies).
- Within the Corps, negotiations with different groups happens often, but it gets to a point where we don't have real authority to continue the negotiations.
- There is no law enforcement authority on the water.
- Reclamation has no police authority at all.
- Regulations within the Corps are there but the process is flimsy. It needs to be clear where we are going.
- Can't do customer survey's because of Office of Management and Budget (OMB) regulations, which become very cumbersome.

MISCELLANEOUS ITEMS

- Accessibility for disabled persons is a universal problem as well. Accessibility standards are important.
- Recreation should not appear to the public as a “one size fits all.”
- Who’s responsible? Responsibility starts with managers defending what they do, and the benefits. It seems there hasn’t been enough of an effort to prove the benefit of recreation. Hydropower and navigation, for example, can do that better.
- The Commission should be more aggressive in what they propose. They have a unique opportunity here that they may not have again.
- BOR also lacks authority. For the projects that no one else wants we lack the authority to manage them. These are the same recreation areas with minimal facilities that private interests don’t want because there is no money in it.
- Looking at it from a business standpoint, who pays for repairs caused by other government entities? If we could play all cards and not just recreation, we could do better.

Dr. Westphal’s discussion with the lake managers further instilled the necessity of their comments regarding the recommendations and guiding principles. The following chapters present the lake managers’ responses to the Commission’s recommendations and guiding principles.

IV. LAKE MANAGERS' RESPONSE TO RECOMMENDATIONS

The lake managers were divided into two breakout groups. One breakout group addressed Recommendations 1 through 8 and the other 9 through 16. Given the short time frame in which to address all sixteen recommendations, breakouts were utilized to obtain the lake managers' comments more efficiently and effectively. Referring to Appendix C, those lake managers who addressed Recommendations 1 through 8 and 9 through 16 are signified by a # and *, respectively.

Dale Brown and Tim Feather presented their respective breakout group with the ground rules of the meeting. The breakout groups were recorded by Michael Beezhold and Roxanne Farm. The facilitators stressed the need to hear and be heard. Each group would take the first few minutes to review the recommendation and/or review their responses. Afterward, the facilitator would ask the lake managers if clarification was necessary regarding the recommendation. Once clarifications were made, the group was prepared to begin offering their comments and insights which were posted on butcher paper by the facilitator and recorded. Comments and examples to support responses were offered by the lake managers.

Prior to the workshop participants were mailed worksheets to help them prepare for the sessions. Participants were asked to provide thoughts on each of three questions:

1. What value does this recommendation have to you as a lake manager?¹
2. What value does this recommendation have to the public you serve?²
3. How will this recommendation affect you?³

Comments by participants were provided in a round-robin session for each of the three questions, followed by any clarifications necessary to help the spokespersons create summaries. Each group selected two spokespersons who represented the group during the report-out activities. During this session each spokesperson reported on select recommendations, offering a summation of the group's discussions of that recommendation. These summarized comments, as well as additional commentary made during the report-out activity, is captured in the information provided following this introduction. Also included in this information are selected comments and/or examples provided by participants of each breakout group that support the

¹This question is referenced throughout the remainder of this report as Value and Effect on Lake Managers.

²This question is referenced throughout the remainder of this report as Public Value.

³It was determined during the breakout sessions that this question incorporated answers from question one. As a result the two questions were merged. Throughout this report, responses to this question are incorporated into responses to question one.

spokesperson’s summarized comments. (A more complete listing of comments and discussions made during the breakout group sessions is provided in Appendix E).

The information provided below represents the incorporation of the following:

- the complete recommendation as it was written in the Commission’s Draft Report.
- relevant clarification information requested by participants.
- the summarized comments as provided by the group spokespersons.
- a synopsis of the group’s responses and comments as well as any claritive examples provided by breakout group participants.
- additional comments, opinions, suggestions, or other relevant information provided during the report-out activity.

In addition to information provided for each of the sixteen recommendations, the following includes information on a seventeenth recommendation. This recommendation was added by the lake managers to address maintenance backlog issues. Further details on this recommendation are also provided in the text.

RECOMMENDATION 1

“Commit resources to and establish an interagency Federal Lakes Recreation Leadership Council to coordinate and guide the implementation of the recommendations of the National Recreation Lakes Study.”

Value and Effect on Lake Managers

Much discussion took place regarding the need to have a Federal Lakes Recreation Leadership Council. There were positive and negative aspects identified. The following is a listing of the summarized responses.

- vehicle for implementing commission recommendations
- emphasis on “forum” format..more suggestive than directive
- vehicle to focus needs from lake managers to a body that can help do something
- help promote consistency between agencies, where applicable
- forum for an on-going reexamination of authorities and policies
- shows commitment to stakeholders for recreation
- learning ground for new approaches (sharing raises consciousness)
- regional level forums should be considered
- sharing lessons learned..benchmarking off leaders and ideas
- general guidelines may be helpful
- opportunity to discuss with public and promote
- advocate for marketing

- avenue for exploring partnerships
- concern about creating its own cumbersome reporting system for data

For the most part the lake managers revered this as a positive recommendation. The Federal Lakes Recreation Council would continue the progress made by the Commission. The Council could serve the agencies by being their centralized and focused lobbyist to Congress and others. The Council may also serve as a clearinghouse of recreation related information. However, a Council, by some, was considered to be more directive whereas a forum would be an entity that is more suggestive. Forums could serve as a more regionalized approach to the continuation of the Commission's work. Others suggested a national Council with regional emphasis. Communication is the key. A Council will focus more attention of the agencies on recreation. As a result of the Council, some standardization and consistency among agencies with respect to recreation may be achieved where appropriate. One benefit of agency consistency was the potential to motivate or force complacent lake managers to think and work out of the box. An important result of the Council would be the increased funding for recreation among agencies.

There was some concern by the USFWS and the BOR who have mandates and policies that require they meet the needs of their constituents (wildlife and irrigators, respectively) first, that recreation is not a priority. Another obstacle as indicated by the lake managers is multiple jurisdictions. Also, lake managers do not wish to have another entity requiring upward reporting of data.

Public Value

The Commission wanted to know from the lake managers what value they perceived would be realized by the public from the establishment of a Council. The following is a list of those values.

- promote consistency of operations, guidelines, and standards, where appropriate
- ongoing forum to exchange new ideas, solutions to problems, and innovation in partnerships and operational areas
- focal point for promoting the recreation value of Federal lakes
- vehicle for engagement of public to express the need to change with changing times
- complacent managers may be encouraged to do more through peer pressure
- some concern about creating its own bureaucracy

Again, if the Council is successful in increasing agency recreation budgets the public would benefit from new, expanded, and/or improved recreation opportunities. The Council serving as a clearinghouse for the agencies would provide the public a one-stop-shop for the public improving their accessibility to information. Change to account for the public's current wants and needs will improve the quality of recreation opportunities while getting the public involved in the reinvention of government. A Council could be a double-edged sword that allows the public to voice opinions and wishes and in turn would have expectations of action from the

agencies. Agencies must be responsive to the public’s expectations in a timely manner or they will lose their trust.

RECOMMENDATION 2

“Apply to the National Partnership for Reinventing Government (NPR) (formerly the National Performance Review) for approval to implement the Commission recommendations in a designated Reinvention Laboratory with lake demonstration projects at selected sites throughout the country.”

Value and Effect on Lake Managers

The lake managers agreed with the Commission that a Reinvention Laboratory with demonstration projects was a good opportunity for intra-agency cooperation. The following is a listing of the summarized responses by the lake managers.

- what you “can do” focus versus “can’t do”
- opportunity to be bold, have support to secure resources, and move through barriers
- ability to experiment without risk of failure
- gives agencies reasons to collaborate ... increases cooperation
- ability to implement good ideas that might have been negated by agency
- allows to look for new opportunities
- potential dollar savings
- potential for simplifying process/procedures
- promotes management flexibility
- increases workload if chosen
- morale booster if new solutions are forged and flexibility given
- provides opportunity to try new things
- lessons learned from demonstration projects can be applied by other areas
- being able to say “yes” more...promotes stronger trust/relationships
- provides project recognition
- gives top management indication of forward movement and spinoff

Many lake managers saw this as an opportunity to cooperate, take risks, and be bold with no repercussions for failure. Several lake managers currently participate in the Recreational Fees Demonstration Program and state that a demonstration site requires significant time and effort of all those involved in such a project. Other managers have worked in similar laboratory forums allowing flexibility among agencies due to the waiver of opposing or restrictive policies of the respective agencies.

The exciting aspects of this recommendation for lake managers are the ability to cooperate with flexibility, be bold and take risks, and be able to share the successes and failures with other

projects to improve the recreation opportunities among agencies. All of these aspects would allow lake managers to focus less on what they “can’t do” to more of what they “can do.” Lake managers agreed that times have changed since their respective agencies were established and it is time to experiment to better understand how they may improve recreation opportunities for the changing wants and needs of the public.

Several lake managers stated that it should be recognized that much time and effort is required when undertaking a demonstration project. Also, upper management does not have the respect for the risks incurred by lake managers. Thus, it might be a hard sell for the staff of a recreation lake. However, it was noted that even though it is hard work, a successful demonstration project is a great morale booster.

Public Value

The Commission wanted to know from the lake managers what value they perceived would be realized by the public from the establishment of a Recreation Laboratory and demonstration projects. The following is a list of those values.

- significant benefits if they can cut through the red tape
- draws public into process of recreating government
- gaining public support for change
- gives a rationale for doing things differently
- additional recreation facilities by moving things forward in a more timely manner
- raises public expectation that could be problematic if we revert back to old way
- faster way to implement management changes

Ultimately, this recommendation promotes change and the public’s involvement in that change. Public involvement results in their support and improved recreation opportunities for the public. However, gaining the public’s input and support would increase their expectations. Thus, the agencies better be ready to deliver in a timely manner otherwise public trust is lost.

RECOMMENDATION 3

“Establish a process to demonstrate the desirability of a National Recreation Lake Program. Through several demonstration pilots, develop and evaluate the guiding principles, criteria and designation process for a national program.”

The lake managers required some clarification regarding this recommendation from the Commissioners. It was stated that Recommendations 1, 2, and 3 are connected in that one establishes the Council, two proposes the Reinvention Laboratory, and three provides the guidance and process of establishing a National Recreation Lakes Program. The NRLS Commission is to document the feasibility of a national lakes program but not necessarily form

such a program. The program would be similar to the American Heritage Rivers Program which is a volunteer supported program whereas what is proposed in Recommendation 3 would require, for example, an Executive Order and would be supported through funding.

Value and Effect on Lake Managers

Once the recommendation was clarified, the lake managers understood the recommendations necessity to move the National Recreation Lakes Program forward. The following is a listing of the summarized responses by the lake managers regarding the third recommendation.

- the Council would be the arbiter of designation criteria which would be developed through implementation of Recommendation 2 in a sequential process that can't be separated out
- an established process is necessary
- the criteria / process would provide a means to measure success
- it would provide interest groups a process to follow / pursue / promote or use to nominate areas
- many potential encumbrances among different agencies would be removed
- "system" implies too much foundation that doesn't yet exist (Scenic Byways is a program not a system)

The lake managers understood how this recommendation could be helpful in reducing the burden of regulations.

Public Value

The Commission wanted to know from the lake managers what value they perceived would be realized by the public from the establishment of a National Recreation Lakes Program. The following is a list of those values.

- designation as a National Recreation Lake would provide an economic stimulus in an area
- this could have a positive impact on the lake if additional money came with the designation
- this could have a negative impact on the lake, especially public expectations, if no money came with the designation
- pilot projects allowed to "shine" will build public trust and support groups / allies
- the designation would provide a forum for the public to focus attention on lakes

The hope of lake managers is that corresponding funding comes with the designation of a National Recreation Lake. Without this funding the added expectations of the public could not be met and their trust and support would be lost.

RECOMMENDATION 4

“Federal agencies need to operate Federal lakes to optimize water use for all purposes instead of operating to maximize water use for one or two purposes.”

Value and Effect on Lake Managers

Most lake managers saw this recommendation to be one of the most beneficial of all the proposed sixteen recommendations. The following is a listing of the summarized responses by the lake managers regarding the fourth recommendation.

- this “mindset” would create / cause collaborative dialogue, but would require strong direction
- certain insurmountable obstacles, such as legally mandated agency missions, would need acts of Congress to overcome in order for this to be beneficial
- what is “optimizing” and how would it be measured? The benefit/cost ratios may be outmoded; many agencies have mandates that hamstring their latitude to define what is being “optimized”

Lake managers agree that this recommendation would require collaboration among agencies. However, for several agencies there are significant obstacles such as enabling legislation and constituencies. For instance, the USFWS manages primarily for wildlife and wildlife habitat while the BOR is responsible for water supply primarily for agricultural irrigation. How optimization will be interpreted by the agencies will require strong direction.

Public Value

The Commission wanted to know from the lake managers what value they perceived would be realized by the public from optimization of water uses. The following is a list of those values.

- can expand the benefits of the original project such as downstream fisheries
- can educate the public about competing interests
- can save some agencies money if agency collaborations result in efficiencies (share resources)
- state representatives, laws, and Federal judges may make this impossible

- disenfranchised the public in the past where they had no say in lake management due to agency mandate - this may provide an avenue to deal with public

The optimization of water uses would bring the public into the process of management. In this process, the public would have a better understanding of competing interests regarding water use. If in the collaboration of agencies money is saved, the agencies would have additional money to spend elsewhere (e.g., recreation).

RECOMMENDATION 5

“Develop and adopt policies and procedures for commercial recreation activities that are consistent for all Federal lakes.”

Value and Effect on Lake Managers

Most lake managers found this to be a difficult recommendation with which to come to closure. The following is a listing of the summarized responses by the lake managers regarding the fifth recommendation.

- need clarification on “commercial” and “consistent”
- need guidelines, not policies
- need to consider regional implications

The lake managers needed clarification on what commercial activities were being addressed by this recommendation. The commercial activities vary greatly among agencies. Many of the lake managers thought this recommendation was in opposition of previous recommendations by calling for consistency among agencies rather than innovations as a result of flexibility. Thus, most lake managers preferred that these be guidelines for agencies not policies. The managers do not want to see an additional set of rules. The NPS just went through concession reform and believes that they have a good program. The BOR stated that some concessions were not providing a benefit, thus the need to change their policies. The BOR, using NPS as a model, recently reformed its concession policies. To have consistency and standardization, one entity must oversee the program otherwise the agencies continue to operate in their own stovepipes.

Even though this recommendation may not seem to benefit the agencies, it may benefit the private sector. Consistency among agency policies and procedures ensures that private firms have commitment by the respective agencies and some assurance of profitability.

Public Value

The Commission wanted to know from the lake managers what value they perceived would be realized by the public from consistent policies and procedures regarding commercial recreation activities. The following is a list of those values.

- services provided that they otherwise would not have
- wider range of services
- consistency destroys innovation...guidelines need to be flexible
- consistency builds trust with commercial entities which leads to nationwide services

This recommendation may ensure that the public can count on a consistent level of services at different agency facilities. Consistency in policies and procedures may provide concessionaires some assurance that they can move among agencies and regions and operate under similar guidelines. This consistency will benefit the public by offering a wider range of services. However, there remains concern that consistency does not allow for innovation.

RECOMMENDATION 6

“Restore adequate funding for nonpoint source pollution projects under the Clean Lakes Program.”

Value and Effect on Lake Managers

Lake managers found this to be a positive recommendation on many fronts. The following is a listing of the summarized responses by the lake managers regarding the sixth recommendation.

- group supports (1) significant issue, (2) good public relations, and (3) good science to deal with it
- should be on a watershed basis; would lead to interagency cooperation
- requires money
- would be good to get the U.S. Environmental Protection Agency (EPA) to loosen up on purse strings

One lake manager stated that this is like voting on motherhood and apple pie. The lake managers agreed that this is an important issue. Municipalities have spent millions of dollars on wastewater treatment and studies. The agencies need to have data to support the lake’s needs as opposed to or in conjunction with the studies produced by municipalities. Ultimately, clean water is good for public relations. This recommendation may release EPA’s 314 funds on which the EPA has tightened both criteria and funding. The lake managers realize the necessity to look

at the whole watershed in this effort. The USFS and the BLM manage a lot of property in the upper watersheds. There has been litigation against the over grazing of public lands (e.g., USFS and BLM) that results in erosion.

Public Value

The Commission wanted to know from the lake managers what value they perceived would be realized by the public from the Clean Lakes Program. The following is a list of those values.

- clean waters have value
- education opportunities
- clean water in lakes lends to clean water for downstream municipalities
- health and safety of facilities

For most of the constituents and customers of the Federal lakes, clean water is highly valued. However, clean water is not as important for irrigation purposes. Education is necessary in the pursuit of clean water. An example of the Natural Resource Conservation Service (NRCS) working with the public was able to slow sedimentation of a lake increasing the lake's life expectancy. Clean watersheds result in clean lakes which result in clean water downstream. Thus, downstream municipalities benefit from clean downstream waters. It was noted that nonindigenous aquatic plants must be addressed as well.

RECOMMENDATION 7

“Revise the Recreational Fees Demonstration Program to include the Bureau of Reclamation and the Corps of Engineers and allow fee revenues to be retained at the management unit where collected and used for operations and maintenance costs.”

Value and Effect on Lake Managers

Lake managers considered this recommendation as a means for the Corps and BOR to achieve onsite funding support from collected fees with some assumptions. The following is a listing of the summarized responses by the lake managers regarding the seventh recommendation.

- should supplement allocated funds
- need to include “capital investment” with O&M in recommendation
- concession / commercial fees should be included

The lake managers identified many caveats to this recommendation. First, if the collection of fees reduced the base funding it may result in no gain of funding. In addition, the cost of collection may result in a loss. Thus, it is noted that the fees collected should supplement the base funding. It was also noted that the fees should be used for improving or adding recreation opportunities. The lake managers thought it was important to have the stakeholders and public involved in this process. Again, this could be a double-edge sword. If the public pays fees, they have expectations of improvements. It was stated that these fees should be used in part for capital investments.

The USFS lake managers note that it is important to hold onto the Fee Demonstration classification as long as possible. The Fee Demonstration Program allows those sites to retain a certain percentage of the fees without losing the base funding. However, it is warned that once the designation is gone OMB may likely remove dollar for dollar the collected fees from the site's base funding. Again, fees are more cost effective near more populated areas. Fee Demonstration projects are allowed to keep eighty percent of the dollars collected and the other twenty percent is divided among other sites. The USFS is unique in that they can keep ninety-five percent of the dollars collected.

The lake managers wanted to amend either Recommendation 5 or 7 with the following statement.

“Money determined to be the fair share to government through concession contracts or fees is retained by the collecting entity (project).”

Public Value

The Commission wanted to know from the lake managers what value they perceived would be realized by the public from the Clean Lakes Program. The following is a list of those values.

- need to educate public to support program -- they in turn become your advocate
- share ownership and take pride in facilities
- safety and health improvement

The Recreational Fee Demonstration Program will instill public ownership at sites served, thus improving health and safety while decreasing vandalism. The health and safety of the public can be improved by cleaning dumpsters and restroom facilities more often. To achieve these positive outcomes, the public needs to be educated on the purpose and desired results of the fees.

RECOMMENDATION 8

“Change Bureau of Reclamation and Corps of Engineers policies to allow them to cost share with their non-Federal governmental partners for rehabilitation of recreation facilities developed in conjunction with States and local governments and amend Public Law 89-72 to repeal the requirement that the Bureau of Reclamation and Corps of Engineers can only develop new recreation facilities through cost sharing agreements with non-Federal governmental entities.”

Value and Effect on Lake Managers

Lake managers find this recommendation to be beneficial for facility funding with some caveats. The following is a listing of the summarized responses by the lake managers regarding the eighth recommendation.

- origin of funds; positive if extra funding and negative if comes out of base funding
- need to include “Federal” as well as “non-Federal” partners
- tweak policies / legislation to “Just Do It”

The lake managers stated that there is a strong incentive for partnerships if the funding is external to their operating budgets. The USFS noted that this may not be applicable at particular sites. The lake managers made strong recommendations that Federal as well as non-Federal partners be considered in this effort.

Public Value

The Commission wanted to know from the lake managers what value they perceived would be realized by the public as a result of new cost sharing opportunities. The following is a list of those values.

- updated facilities
- increased opportunities
- provide new facilities for communities that don’t have facilities

Cost sharing will provide the public with new and/or improved recreation opportunities. Cost sharing will allow states and local communities to provide these opportunities. The lake managers noted that the public needs facilities to accommodate today’s public not yesterday’s.

RECOMMENDATION 9

"Amend Wallop/Breaux to eliminate the Federal grant-in-aid requirement for State matching funds when projects benefit Federal lakes."

The group was not entirely clear on what Wallop/Breaux was or what its effect might be. Commission staff was available to make some clarifications to the group which helped them to better understand the recommendation.

Value and Effect on Lake Managers

Participants for the most part found this recommendation to be troublesome. Though they agreed that it would provide managers more flexibility and allow for more money to be available if it could be implemented, they had several concerns with it. Below are summarized comments from these discussions.

- increase flexibility
- more \$ for viable projects
- more partnerships
- expand to allow fees to be charged
- some states not interested
- expands the likelihood projects will be funded
- may provide funding for O&M
- may impact funding at project (station) level

Participants felt that though it is great to get funds for additional facilities, often there is not enough funds for upkeep on the facilities they already have. Unless these funds come with a percentage of resources available for continuing O&M afterwards, participants felt it could have a negative impact on their budgets overall. In addition, there is always concern about states forgoing maintenance efforts after having partnered with the Federal government to build a new facility. When this happens the responsibility reverts to the Federal government since the facility is on Federal lands.

Participants also felt that limiting requirements and restrictions on charging fees at various sites as a part of this recommendation would be beneficial. Aside from these issues, the fact that states and counties may not even be interested in partnering with Federal agencies would be one of the other possible impacts of this recommendation.

Public Value

Participants did not seem to be completely clear on what Wallop-Breaux is, or how it affected them. Several participants noted that they could not reliably make suggestions one way or the other because of their lack of information on the subject. Following are summary comments generated by the group on this recommendation.

- no effect
- positive economic impact on local areas
- more projects to benefit public
- especially good for low populated states

For those who were able to respond, they felt that overall it would offer a positive public value. They especially felt that low populace states would benefit the most. Better access to facilities as well as better facilities were some of the positive values participants felt the public might enjoy from this recommendation.

One clarification participants felt may be helpful, however, was to “amend” the recommendation so that it did not specify Wallop-Breaux exclusively, but also the other two programs that participants felt were even more important for the enhancement of value to both managers and the public. (The Transportation Equity Act for the 21st Century (T-21), and the Land and Water Conservation Fund).

Overall participants felt this recommendation was a good one if it was feasible, and if these monies could also go towards the direct O&M costs that would accrue after development of new facilities.

RECOMMENDATION 10

"Earmark a percentage of Wallop/Breaux administrative funds for tribal recreation lake development projects."

Commission staff was asked by the group what the current situation was regarding tribal funding and Wallop/Breaux. The staff was able to offer the group more specifics and clarification.

Value and Effect on Lake Managers

The following is a listing of the summarized responses by the lake managers regarding the tenth recommendation.

- none
- could disperse use
- could expand opportunities for tribes that allow public use
- potential problems with opening tribal lands to public use
- practical issues - where is the money now? What is it doing?
- don't manage tribal lands - no affect
- very site-specific

On the whole participants saw this recommendation as raising several concerns for them. Specifically there was question of where the money would come from. Currently this is the Secretary of the Interior's discretionary funding. Participants felt it was unrealistic that these funds would be earmarked for this purpose.

Other practical issues that participants felt would need to be dealt with was the issue of open access. Many tribes do not care to allow for open public access to their tribal lands. This "recommendation" may leave the door open for the Federal government to require more open access on these lands. One participant suggested, however, that those tribes not wishing to allow for more open access would not be required to participate, if they chose not to.

On a positive note, participants felt that this recommendation could disperse use nationally, as well as offer opportunity for improvements on Tribal lands. These would be practical goods for public value. Participants couched their responses, however, by noting that the benefits may end up causing other problems down the road.

Public Value

Participants felt that this recommendation would have a net positive effect on public value if implemented. Comments essentially revolved around increased public value through increased opportunity for public access areas (thus possibly reducing crowding at other over used facilities). Summarized comments from the group are as follows.

- could increase public recreation activities - reduce crowding
- site-specific

Specifically some participants were interested in the possibility of additional resources for their agencies that provided for facilities in downstream tribal land areas. Comments were made that this would greatly reduce the stress on resources and help to enhance these downstream areas.

RECOMMENDATION 11

"Conduct assessments at Federal lakes to determine customer needs, infrastructure and facility needs and natural resource needs and through a series of public information programs, identify the types and location of recreation facilities and education services."

A couple clarifications were addressed for this recommendation. The group wanted to know who would be conducting the assessment and they needed some clarification on the term "education services." Commission staff noted that the term was a bit of a "catch-all" in an effort to inform people about recreation opportunities. This process could be several things, including

media communication, more formal educational opportunities, national marketing meetings, etc. As per the assessment, the staff noted that agencies may be able to do these assessments jointly as a way of avoiding duplicate efforts.

Value and Effect on Lake Managers

Advantages and disadvantages to lake managers as discussed by participants are highlighted below.

- identifies priorities
- may provide national assessment
- may help secure funding
- help predict changing public needs
- factor in input from industry to get trends
- duplicates existing efforts - must use existing information
- collecting extra information will take away from other activities of higher priority
- low value to many managers
- OMB policy on local information collection
- could divert resources from other programs
- can create expectations that can't be delivered
- don't change if you have high public satisfaction

Essentially participants felt that managers are most likely already doing this. Overall the response to this recommendation was less than positive. Though they felt it would be informative to see this type of information on a nationwide basis, they felt that if it meant more workload to gather the same type of information that they are already gathering it would have a negative effect on them. An entirely new assessment, utilizing information they have never used, would add even more to their workload, allowing for less time to do work they have little time for already.

There was a suggestion made that perhaps they should take some time to do a determination on what type of data agencies are already collecting. From this information they felt a clearinghouse of information could be gleaned, without requiring a plethora of additional data gathering requirements.

Though there was general consensus that it would be of positive benefit to partner with other agencies to make this information national, some participants were concerned about letting performance measurement-type of information out into the "open". There was a feeling that perhaps this information would unfairly affect funding in their area. In addition agencies cannot always give customers what they desire for political reasons, safety issues, lack of resources, or a combination of these. Creating expectations by asking them what they want to do even if they will not be able to fulfill all of these requests may turn out negatively.

Public Value

Some of the concerns that applied to the lake managers were also expressed as concerns for value to the public. Summarized comments are noted in the following text.

- could increase customer satisfaction
- gets structured input from the public
- could increase public understanding
- delivery is expected
- imparts feeling of ownership with users and industry

Specifically it was felt that delivery of customer expectations may be assumed, even though it may be feasible to fulfill them. Participants did feel, however, that it could increase customer satisfaction as well as public understanding of what managers can and cannot do with the resources allotted them.

This recommendation would help impart a feeling of ownership for the public user as well as for private industry, who would feel more involved in what happens on Federal lands.

RECOMMENDATION 12

"Consider downstream recreation activities at Federal dams, including canoeing, kayaking, rafting and fishing, as integral elements of project operations process. Include opportunities to enhance downstream recreation during demonstration projects."

The recommendation required more clarification on what was meant by "downstream." The group noted that this term could encompass numerous possibilities. It is 2 miles? 50 miles? Where does it end? Commission staff noted that the Commission had not specifically defined this concept, so for the sake of commentary, it was determined that the concept of immediate downstream would be utilized.

Value and Effect on Lake Managers

Comments from participants on this recommendation were evenly split between positive and negative effects to lake managers. Some participants were not sure how this recommendation would affect them, especially when it seems that lake managers already consider downstream areas when making decisions. In some cases participants felt that this was a regional issue, and that it should not even be considered as a national issue. Listed below are summarized comments from the group.

- do not extend to downstream
- too hard to define downstream
- are considering these areas now
- local issue not national
- increases liability

Participants did agree that this was not an easy issue, and that a national recommendation to consider downstream effects could have a positive influence on what has been in the past an environmental battle of wills between upstream and downstream interests. Participants did acknowledge the importance of recognizing downstream activities and issues, though they worried that some agencies might see this effort as an infringement upon their primary purpose.

Overall it was felt that most managers already incorporating these considerations into their decision-making processes, therefore a national effort would only confuse and/or overlap efforts.

Public Value

Participants felt overwhelmingly that this recommendation would have a positive affect on public value. In addition to helping increase the usability and opportunity for recreation, it could provide local economic stimulus and would probably improve public confidence. It would show the public that considerations are being made for both sides of a dam, and that managers were not just focusing upstream (or downstream). Additional comments are provided below.

- increases opportunities
- potentially unsafe conditions/areas
- could create local economic stimulus (“new” use)
- narrow user group

One possibly negative consideration is that the recommendation may have direct benefit to a very narrow group of people. Specifically white water rafters, and limited fishing interests. Participants did note, however, that even this consideration provides for indirect economic stimulus caused by spending by these individuals.

RECOMMENDATION 13

"Establish a common and consistent water-related recreation performance measure for all Federal lake management agencies."

Value and Effect on Lake Managers

Lake managers seemed to have a lot of concern about this recommendation. Below are summarized comments followed by more detailed comments.

- little value
- if “meaningful” could be more effective
- USFS and NPS already have system - change would double workload
- helps defend management practices - if measurable
- provide better facilities
- consistency = common and mediocre

They felt that it was unrealistic that a national measurement goal could be specific enough to be of use in the field. In addition, most agencies have already incorporated some type of performance measurement process. If agencies were to have to make major adjustments to processes already in place to accommodate this recommendation it would mean quite a bit of additional work. Resources were also a concern, as some participants felt that there just wouldn't be time or money available for such a request, depending upon the data needs that would be required.

Participants did feel, however, that if national recreation performance measures could be created and funded, they would be effective in helping managers defend their management practices and to show why they needed funding to do certain things. Practically, however, it was felt that the value to public managers from this recommendation would be minimal.

Public Value

Overall the effects to the public value according to the participants would be less than positive. There would be minimal to negative effect, according to these managers.

- could provide better facilities at park than users have at home
- provides accountability
- provides minimum expectations
- cause frustration to public; no \$ to meet standards

Participants felt that this recommendation would create an emphasis on performance that was limited, thus taking away from management initiative. In addition, funding was also a concern. Creating national performance quality standards is wonderful provided the funds are there to keep facilities up to standard. If not, you create a situation in which the public expects a minimum set of standards that particular facilities may not be able to afford to upkeep.

Essentially participants felt that there are advantages and disadvantages to having a national performance emphasis. Accountability is a major advantage though the potential for failure, or for non-compliance, would be quite impossible to ignore.

RECOMMENDATION 14

"Establish regular inter/intra agency and private sector development assignments, exchanges and meetings for Federal lakes/ supervisors and staff to enhance expertise and understanding."

Value and Effect on Lake Managers

Overwhelmingly, participants felt that this recommendation provided for positive value to lake managers. Below are summarized comments from these discussions.

- good idea - great insights for learning
- annual meeting useful
- fits nicely in ecosystem and watershed approach
- how far down the chain?
- tap into recently retired
- \$ is an issue
- career advancement
- private sector exchange - lead to efficiency

Participants felt that it would allow them to offer their staff more experience as well as provide for some short-term resources. It would additionally offer managers a chance to learn from each other, and not “reinvent the wheel” each time they delved into something they had not yet tried. Some participants noted that they had “borrowed” expertise resources from other agencies before with much success. Participants felt this was one way Commissioners could really help managers in a practical way.

In addition, participants felt that the expertise of recently retired employees should be considered, as well as the career opportunities this type of inter/intra-agency exchanges might create for employees. The only concern with this recommendation was an issue of where the funding may come from, and how such meetings or development assignments might get funded.

Public Value

Participants felt that the value of this recommendation was just as positive for the public as it would be for lake managers.

- enhance recreation experience of public
- decrease local public frustration by minimizing agency conflicting rules - publicize efforts

- better trained public employees
- public takes some ownership

Specifically participants felt it would provide managers with more ideas on how to manage facilities in different ways, thus benefiting the public with improved recreation facilities. It would allow for better trained employees with more skills which would enhance the recreation experience over time. In addition, it could lead to decreased public frustration if different agency managers got together and created better ways of providing public services to joint customer areas. Encouragement of public release of information was also a positive good that participants felt could result from this recommendation. Participants only warned that managers would need to be careful about what they publicized about these types of events (promoting the learning/experience growth aspects and not the logistics of the event, such as “managers to meet in Florida for a winter convention”, etc.).

RECOMMENDATION 15

"Endorse the implementation of the National Recreational Fisheries Conservation Plan at Federal lakes."

Commission staff was available to offer the group a more detailed clarification of the National Recreation Fisheries Conservation Plan. Other questions included whether or not agencies have already endorsed this plan (the Commission staff indicated that most have).

Value and Effect on Lake Managers

Participants were overall in agreement of the positive benefits of this recommendation to lake managers. Comments for this recommendation by participants are summarized below.

- provides opportunity for segment of public not provided for
- improve resources
- opportunity for partnering
- good \$ source for habitat
- new \$ funding source
- opportunity for disabled access
- more aware of program
- help public image
- reinforce current action plans
- endorse/utilize

Specifically they felt it would allow projects such as wildlife and boat traffic to expand while still allowing for development that would handle the additional usage. It would significantly help with public image (especially with the Corps) and would provide opportunities

for a segment of the public that are not being provided for now. This was also thought to be an excellent opportunity for partnering.

This recommendation seemed especially beneficial to lake managers if there were resources attached. These resources would need to be ones not already accounted for in the current budget, however. This seems to be a good funding source for habitat work, as well as increased opportunity to provide facilities for the handicapped.

Neutral to negative comments were few, however participants were aware that often monies for programs such as these do not trickle down to the field managers as they should. There should also be more explanation of where the money will come from and what exactly it would be used for. In addition agencies should always accommodate special interest groups with care.

Participants essentially felt that this was a good recommendation, though endorsement seemed ancillary since most agencies have already endorsed it.

Public Value

There was consensus that this recommendation would have a very positive effect on public value. It would increase opportunities for the recreating public, improve basic resources and satisfy basic recreation and environmental issues, as well as improve connectivity with the public.

- increase opportunity for fishing public
- improve basic fishery resource
- improve water quality
- better connection with public

The fishing public would be especially benefited. These groups already see their license fees and gas taxes, etc., cycled back into projects, and this would increase their awareness of Federal land facilities and how their money is being used.

RECOMMENDATION 16

"Encourage private recreation interest groups to organize to assist the Federal government in raising awareness of recreation lakes and raising funds for the support of recreation lake improvements."

Value and Effect on Lake Managers

Most of the participants felt that this recommendation was a good idea as an additional source of funding and as a way for lake managers to interact with public groups and incorporate team building. Summarized comments are provided below.

- good source of \$ - \$ for expensive projects
- great tool for informing public
- heightened awareness of public lands and water
- proceed with caution
- objective - must be “focused”
- cater to special interest
- counter to sound recreation and environment practices
- political repercussions
- FACA implications

Though participants felt there may be some political repercussions, they also thought it was a great tool for informing the public and partnering. Participants warned that caution should be taken, however, when proceeding with this endeavor as dealing with often differing public and private objectives can be difficult and at times can have negative results.

This recommendation also raised the concern about catering to special interest groups. Though public/private partnering is inviting, trying to get public groups to raise money for these types of efforts is often unsuccessful. In addition, these private groups do not generally raise money for nothing - there is often a catch. Though most all participants agreed they would support public awareness efforts, many were not certain how much success was possible in this type of public/private venture.

Public Value

In general participants felt that this type of endeavor seemed good on the surface, but most seemed apprehensive that it would be very successful, or that the value to the public would be overly beneficial. Essentially the recommendation would be successful in raising more political awareness as well as to educate the public more.

- improves recreation opportunities
- educates public
- raises political awareness
- provides opportunity for groups to get what they want

Participants stressed, however, that these special interests should remain very focused. Participants noted that these public/private ventures would most likely only occur where private interest had something immediate to gain from the effort. In this respect, the public value would increase as the public began to realize the political clout they carried to get things done. On the

down side if public managers fail to come through with projects the public wants, they may be setting themselves up for even more scrutiny and disapproval by the public.

Overall however, participants felt that the heightened awareness of the large number of Federal lakes would be quite effective, as would a series of public service announcements about the value of public lands.

RECOMMENDATION 17

"Reduce the recreation facilities maintenance backlog by 10 percent in each of the next 10 years with additional, appropriated funds."

Toward to the end of the breakout session, participants in the "*" breakout group felt that addressing backlog concerns directly was very important to lake managers. In this regard, they agreed that creating an additional recommendation that drew attention to these concerns directly was appropriate. They adopted wording from a previous Commission draft report which included this recommendation. In addition to the wording above, participants discussed the importance of including this type of recommendation. Highlights from this discussion are included below.

- many of the recommendations are really talking about new facilities and new projects - those that are funded need to come with O&M funding also. Existing maintenance problems are already an issue without adding more with new facilities.
- years ago we couldn't articulate the separation of operations from maintenance. Today we can identify where the backlog is, and can direct spending accordingly yet our agencies are rolling scheduled maintenance together with needed maintenance which clouds the picture and gives an inaccurate view of our real backlog needs.

Participants were eager to see how the Commission was going to address backlog, given the relative importance it seemed to have for all lake managers.

RECOMMENDATION PRIORITIZATION

Once the lake managers had an opportunity to hear the responses of the breakout groups and provide additional commentary, they were asked to prioritize the seventeen recommendations. The question was posed by the lead facilitator that if you, the lake manager, were to visit Congress, which of these recommendations would you take. To get a quick group perspective on priorities, each lake manager was asked to indicate their four highest priority recommendations. The prioritization was weighted with the first selection being worth four points and their fourth selection worth one point. Thus, there were ten possible points per lake manager. The results of this prioritization activity are presented in Table IV-1.

The lake managers gave Recommendation 17 addressing the maintenance backlog the highest priority receiving sixty-nine points. This was followed by Recommendation 7 with forty-three points. This recommendation revises the Recreational Fees Demonstration Program to include the Corps and BOR. Recommendations 1 and 4 received thirty-three and thirty-two points, respectively. The first recommendation addressed continuing the work of the NRLS Commission. The fourth recommendation addressed the concept of optimizing differing water uses. Those recommendations receiving a low number of votes should not be interpreted as having little value. Rather, they are, per the prescribed voting exercise, not in the upper tier or priority.

TABLE IV-1

LAKE MANAGERS' PRIORITIZATION OF RECOMMENDATIONS

Recommendation	Points	Recommendation	Points
Recommendation 1	33	Recommendation 10	0
Recommendation 2	12	Recommendation 11	9
Recommendation 3	13	Recommendation 12	0
Recommendation 4	32	Recommendation 13	1
Recommendation 5	0	Recommendation 14	9
Recommendation 6	6	Recommendation 15	0
Recommendation 7	43	Recommendation 16	0
Recommendation 8	9	Recommendation 17	69
Recommendation 9	4	Total	240

V. GUIDING PRINCIPLES

Dr. Joseph Westphal and the other attending Commissioners requested that the lake managers review the guiding principles established by the Commission. During a plenary session, the lake managers evaluated the six guiding principles of the Commission. These guiding principles and supporting information are presented in the draft report of the National Recreation Lakes Study (NRLS) Commission provided in Appendix A. A brief list of the guiding principles are as follows.

1. Protect the Environment
2. Recognize the Needs of Neighboring Communities
3. Increase Management Flexibility and Reward Management Innovation
4. Attract Public and Private Partners
5. Reaffirm Federal Responsibilities
6. Optimize Water Use

The following are summaries of discussion by participants regarding the guiding principles.

PROTECT THE ENVIRONMENT

All lake managers agree that this should be a guiding principle. One recommendation was to move clean water further in the list of the first sentence. Constituents of the BOR such as irrigators might not find this appealing. The group concurred with this working recommendation. Comments also suggested that this may tie into watershed and include discussion of downstream interests.

RECOGNIZE THE NEEDS OF NEIGHBORING COMMUNITIES

Lake managers agree that they should recognize the local communities. However, they should address the regional and national perspectives as well. Also, the local community may make up a small proportion of a lake's customer base. It was noted that local communities sometimes assume ownership of the lake and would not consider the interest of the public and environment. The lake managers stated that the verbiage of the guiding principle should display that the agencies should encourage the involvement of local communities. Also, it should be stated more strongly that the agencies will recognize the local community's needs, not necessarily accommodate their needs.

One participant noted that they would feel more comfortable if this were reworded to say "encouraged the involvement of local communities." The idea was otherwise it may be portrayed that we will be able to always give customers what they want. The group was in

consensus that if the wording were changed to include "involvement" they could support this principle.

INCREASE MANAGEMENT FLEXIBILITY AND REWARD MANAGEMENT INNOVATION

A lake manager noted that the guiding principle emphasized management flexibility more than innovation. Many questioned what rewarding innovation meant. Would innovation result in a monetary reward? However, the lake managers thought it more important to support management innovation rather than reward innovation. The managers want to see management support for risks taken. Rather than reward management innovation (e.g., money), the managers want management recognition (e.g., Vice President's Hammer Award). Some of the lake managers wanted to see statements such as "increase management flexibility" and "remove penalties for taking reasonable risk" within the supporting documentation. The group eventually concurred that the wording "support and recognize innovation" was more appropriate

ATTRACT PUBLIC AND PRIVATE PARTNERS

Participants began discussions on this principle by indicating that it seemed too all encompassing- that Federal agencies would do whatever came along. Already managers are concerned about communities and private ventures that "bite off more than they can chew." The hope was that this principle would not encourage more ventures that would end up in the laps of Federal agencies. Participants also noted that there should be some balance between the private emphasis in this principle and the Federal emphasis in the next one (Principle 5).

Another concern was that in the past, the funding of the budgets for the project were just supposed to come to the site. But now, lake managers have to search for funding through such things as partnering. However, lake managers have experienced problems in the past by entities seeking partnership but the entities are unable to follow through. Also, partnering may establish an agenda for the lake that is not appropriate. The supporting documentation of this guiding principle should state "should utilize public and private partners" instead of "depends on private and public partners." Participants also noted that these should be "viable" partners.

REAFFIRM FEDERAL RESPONSIBILITIES

Participants felt that this guiding principle seemed to duplicate some of the supporting documentation of Guiding Principle 4. Several lake managers thought the language of this documentation may be too strong by stating "Federal government must continue to uphold its responsibility." Others thought the language should be strong. One participant noted that part of what this Commission could do would be to reestablish Federal responsibility - the Commission should act as a recreation advocacy group.

OPTIMIZE WATER USE

Several lake managers suggested that their agency mandates would not allow for optimization. For instance, the mandates of the USFWS require that wildlife and wildlife habitat are priority above any other use. The guiding principle was clarified by stating that the authorized purpose of a dam may not be recreation but recreation can be accounted for in the optimization of water uses. It was noted that this guiding principle is necessary to create discussion and look beyond mandates and purposes and seek change. Several agencies noted that the verbiage of this guiding principle may pose a threat to a number of constituents and other organizations.

ADDITIONAL GUIDING PRINCIPLE COMMENTS

The lead facilitator asked the lake managers if there were any guiding principles not accounted for by the six already provided by the Commission. Several lake managers mentioned maintenance backlog as an additional issue. To address the backlog in a more presentable way, participants suggested that this be addressed as a quality of service issue - that the goal should be to create a high quality of service which would reflect an increase in maintenance. One participant noted that they would like to see something which reflects satisfied customers. It was noted that this does not mean minimal facilities and standards but high quality of services.

APPENDIX A
DRAFT REPORT

**Working Draft
for
January 20-21, 1999
Lake Managers' Meeting**

**Proposed Draft Sections
of the Report
of the
National Recreation Lakes Study Commission**

**Working Draft
for
January 20-21, 1999
Lake Managers' Meeting**

PREAMBLE

The Value of Recreation in America

In the second half of the 20th century, outdoor recreation emerged as an important family and societal value in the United States, a significant contributor to economic prosperity, environmental sensitivity, public health and the pursuit of happiness.

- Recreation constitutes 10.5% of all consumer spending and contributes over \$350 billion annually to the Gross Domestic Product.
- Resource protection and conservation are concerns shared by many outdoor recreationists.
- Outdoor recreation is uplifting to many Americans, increasing their health and sense of well-being and respect for creation.
- Participation in outdoor recreation spans the entire spectrum of American demographics.

Water Is a Recreation Magnet

Water is America's number one recreation attraction. Seventy-five percent of all recreation in the U.S. occurs within a quarter mile of water. Federally-managed manmade lakes (Federal lakes), 1,782 in all, provide many of America's public opportunities to fish, camp, boat, swim, observe wildlife, hike, or simply rest and enjoy being outdoors. For example, 45% of all lake fishing in the U.S.(excluding the Great Lakes) occurs at Federal lakes. The economic impact associated with recreation at the 1,782 Federal lakes is in excess of \$44 billion annually. The total employment associated with recreation at these lakes is more than 600,000 jobs annually.

America's Federal Lakes

Ranging in size from ten to 368,000 acres, Federal lakes are the products of an ambitious Federal government program of dam construction on rivers for one or more purposes, including irrigation, hydropower, flood control, navigation, water supply and recreation. Though many dams authorized by Congress were justified on the basis of recreation, less than one-quarter have recreation as a legislated primary project *purpose*.

Yet to the American people, recreation is a very important and highly-valued *use* of Federal lakes, regardless of legislated purpose, and that use is growing. Visitation at Federal lakes is approximately 900 million people annually and will continue to grow at the rate of approximately 2% a year for the foreseeable future.

A Commission to Study Lake Recreation

The Omnibus Parks and Public Land Management Act of 1996 created a Presidential commission “to review the current and anticipated demand for recreational opportunities at federally-managed manmade lakes and reservoirs” and “to develop alternatives for enhanced recreational use of such facilities.” Congress found that the Federal government, under the authority of the Reclamation Act and other statutes, has developed manmade lakes and reservoirs that have become a powerful magnet for diverse recreation activities and that such activities contribute to the well-being of families and individuals and to the economic viability of local communities. In order to further the purposes of the Land and Water Conservation Fund, Congress created the National Recreation Lakes Study Commission. Before developing alternatives, the Commission determined the current state of Federal lake recreation. They found:

Condition of Recreation Facilities. The U.S. currently has an adequate land and water base to satisfy the increasing needs of Americans for lake recreation, but it is not devoting sufficient resources to the construction, maintenance, management and operation of facilities needed or desired by the recreating public. Eighty-four percent of the 1,782 Federal lakes are 25-50 years old and many of their aging recreation facilities are not being maintained or upgraded. There is an estimated \$800 million recreation facilities maintenance backlog at Federal lakes. Agencies are planning little rehabilitation or construction due to limiting authorities, continuing budget constraints, other mandates and urgent competing priorities.

In addition, there are over 800 State parks on Federal lakes, and the State agencies who manage them for recreation face similar obstacles. Some, unable to cope with rising maintenance costs, have turned back operation and management of recreation facilities to Federal agencies. There is no current plan to rectify the situation.

Complexity of Law and Management. Adding to the complexity and difficulty of growing backlogs, turn backs and outdated facilities, the 1,782 Federal lakes are administered by more than eleven agencies operating under numerous and different legislative authorities, different Congressional oversight and appropriation committees, and divergent laws, regulations, policies and priorities.

Commission Recommendations

Given these challenges, the National Recreation Lakes Study Commission has gathered and analyzed information, conducted numerous public workshops and meetings, and now seeks to offer the President and Congress recommendations to improve and enhance public facilities on Federal lakes in order to provide the American people the kind of high-quality, environmentally appropriate recreation opportunities that they love and need.

GUIDING PRINCIPLES

The National Recreation Lakes Study Commission embraced five guiding principles in the development of recommendations.

Protect the Environment

Clean water, healthy watersheds and healthy landscapes are essential to quality outdoor recreation. Federal lakes have resource values that must be safeguarded. Many are sources of municipal drinking water. They provide habitat for fish and wildlife. They are used for swimming, boating, fishing, camping, hiking, wildlife watching, hunting, sailing, picnicking, sightseeing and many other activities. Downstream recreation includes kayaking, canoeing, tubing and many of the same activities enjoyed at Federal lakes. Environmental quality is critical to all these activities.

Recognize the Needs of Neighboring Communities

Federal lakes are a significant source of stability and opportunity for local and regional economies, in the services they deliver, visitors they attract, jobs they create and tax revenue they generate.

Community involvement is essential to responsive Federal lake management. Communities and regions near Federal lakes have a stake in how lakes are operated and how water is used, and their views and needs must be respected. These needs include some or all of the purposes of the lakes, including power generation, irrigation, navigation, flood control, water supply, fish and wildlife management and recreation.

Increase Management Flexibility and Reward Management Innovation

Developing incentives for management innovation at Federal lakes is critical to solving the problems of enhancing recreation to meet demand while reducing the maintenance backlog. Managers at all levels need to constantly seek new and sustainable funding sources, consistent Federal policies and creative ways to work with the local community and private and public partners.

Attract Public and Private Partners

The future of public outdoor, water-related recreation depends on private and public partners to stretch limited budgets and downsized human resources. Attracting partners depends on reducing barriers to partnership with consistent Federal law, policy and agency practice.

Reaffirm Federal Responsibilities

Along with power generation, irrigation, navigation, flood control and water supply, Federal responsibility at Federal lakes includes recreation as well as enhancement of fish and wildlife resources for the life of the projects. As America continues to depend on Federal lakes for

these needs, the Federal government must continue to uphold its responsibilities by developing appropriate budget requests and setting program priorities in partnership with State and local governments and the private sector to enhance recreation at Federal lakes.

Optimize water use

Water at dams can provide additional public benefits when the finite water supply is managed with flexible policies to optimize multiple benefits. Most Federal lakes were built to maximize water use for one or two primary purposes set many years ago by the authorizing legislation. Today's contemporary competition for water use includes public interests other than a maximum output benefitting one or two purposes. Optimizing water use for many purposes rather than maximizing water use for a few purposes, will produce more public benefits from this finite water supply. The resource is used more responsibly and the public receives more benefits from the same resources.

GOALS

In order to carry out the mandate of the legislation that created the National Recreation Lakes Study Commission, the Commission established the following goals:

- 1. Document the current infrastructure, supply and projected demand for recreation at Federal lakes.**
- 2. Identify and promote the environmental values associated with Federal lakes.**
- 3. Evaluate the feasibility of a National Recreation Lake System and alternatives that promote partnerships to enhance recreation at Federal lakes.**
- 4. Develop legislative and policy recommendations to enhance the quality and quantity of public recreation at Federal lakes while protecting the environment and maintaining consistency with the achievement of project purposes.**

BACKGROUND

Federal land management agencies do not maintain consistent data bases on the Federally-managed man-made lakes (Federal lakes) they administer. The National Inventory of Dams, maintained by the Federal Emergency Management Agency (FEMA), was the most consistent cross-agency source of data. Developed to support dam safety, it contains data on more than 75,000 dams. Approximately three percent of those dams are administered by the Federal Government.

The definition of a Federally-managed man-made lake or reservoir is: “any Federally-managed pool of water caused by any Federally constructed artificial barrier, including appurtenant works, which impounds or diverts water, and which has an impounding capacity at maximum water storage elevation of fifty acre-feet or more.” There are 1,782 lakes or reservoirs in this category within the FEMA data base.

The agencies that manage recreation at Federal lakes include the Bureau of Indian Affairs, the Bureau of Land Management, the Bureau of Reclamation, the Corps of Engineers, the Fish and Wildlife Service, the Forest Service, the National Park Service, the Tennessee Valley Authority and the Departments of the Army, Navy and Air Force.

Because providing detailed information on all 1,782 Federal lakes was a fiscally and physically impossible burden on the agencies and including lakes too small, too remote, or too unlikely to attract, support or maintain recreation development as envisioned in the Commission’s authorization, detailed data collection focused only on lakes and reservoirs with a 1,000 or more surface acres of water, of which there are 491. Even then, several agencies were unable to provide detailed data because they simply do not collect the requested data. This reflects the priority some agencies place on recreation.

It became clear in the early stages of this study, that dealing with the Federal lakes would be an extremely complex task. The Federal lakes are managed by ten agencies in three departments (Army, Interior and Agriculture) and by one regional, Federal agency (Tennessee Valley Authority). Some of the agencies have multi-purpose missions while others have single purpose missions. The one thing they all have in common is that they are responsible for managing Federal lakes. Further complicating the development of comprehensive recommendations that would apply consistently to all of the agencies is the fact that eleven different subcommittees in the Congress provide oversight to these agencies and four appropriations subcommittees provide funding.

The Federal lakes were built for a number of purposes or combinations of purposes. Some of the more frequently cited purposes are flood control, hydroelectric power, navigation, water supply, recreation, fish and wildlife, irrigation, low flow augmentation, water quality and debris control. Eighty-four percent of the Federal lakes were constructed 25 or more years ago. A number were constructed in the mid-fifties to early sixties making them 35 to 45 years old. In many cases, the recreation facilities at those lakes are just as old as the lakes

and in a state of disrepair. The estimated recreation facility maintenance backlog at all of the Federal lakes combined is \$800 million.

Congressional appropriations for recreation have not kept up with the growing maintenance costs and the increasing public demand for recreation. Although the table below shows that the Bureau of Land Management and the National Park Service have enjoyed a moderate increase from FY 1994 through 1997, the total recreation appropriations for all agencies reflect a steady drop. Thus, the funds available for normal operation and maintenance of recreation facilities are decreasing, while use by the American public is increasing.

Table 1
Federal Agency Recreation Appropriations
for Fiscal Years 1994 - 1997

Agency	FY 1994	FY 1995	FY 1996	FY 1997
BLM	25,104,000	25,889,000	26,043,000	27,772,000
BOR	22,095,000	16,261,000	12,455,000	9,624,000
FS	372,247,000	301,546,000	267,178,000	281,000,000
NPS	230,000,000	250,300,000	251,500,000	271,900,000
COE	196,514,000	210,300,000	198,339,000	197,364,000
FWS	35,000,000	35,000,000	35,000,000	35,000,000
TVA	21,686,000	19,358,000	15,316,000	16,172,000
Total	902,646,000	858,654,000	805,832,000	838,832,000

Over 1.8 billion visits to the Federal agencies occurred in Fiscal Year 1997. Of that number, 900 million people visited Federal lakes. Only three agencies (COE, BOR & TVA) collect data on visitation specific to lakes.

All seven of the Federal land management agencies develop partnerships with the private sector to provide public recreation opportunities. Three of the agencies (COE, BOR and TVA) also partner with States, counties, and cities. More than 800 State parks are located on Federal land around these lakes.

Financial Impacts

In 1995, international travelers spent \$79.7 billion in the U.S., and American travelers spent \$60.2 billion outside the U.S., creating a trade balance surplus of \$19.5 billion, with travel being one of the few economic sectors that generates a positive trade balance. During 1995,

domestic and international travelers together spent \$421.5 billion in the U.S., which is a 5.8 percent increase over that in 1994. When induced and indirect effects are added to those expenditures, the estimated total expenditure for 1995 was about \$1,017 billion, which translates into some 16.5 million jobs, travel-related payrolls of approximately \$116 billion, and \$64 billion in Federal, state, and local tax revenues. In 1995, travel and the related tourism it stimulated was the third largest retail industry in the U.S. after automotive dealers and food stores.⁴

Recreation associated with the 1,782 Federal lakes supports hundreds of thousands of jobs, and it accounts for one-half of one percent of the Nation's gross domestic product. Recreational fishing, boating, swimming, camping, wildlife observation/photography, and land associated recreation that includes picnicking, hiking, etc. provide significant economic benefits.

The economic impact associated with recreation at the 1,782 Federal manmade lakes is \$44 billion annually. The total employment associated with recreation at these lakes is 637,000.

The recreation revenues collected by the Federal agencies in Fiscal Year 1997 was equated to only 28 percent of the total Federal agency recreation appropriations. This was in spite of a 61 percent increase in recreation revenues experienced by the Forest Service, the National Park Service, the Bureau of Land Management and the Fish and Wildlife Service. This increase was due to the implementation of the Recreational Fee Demonstration Program which authorized these four agencies to implement and test new fees across the geographic and programmatic spectrum of sites managed by the agencies and to retain at least 80 percent of the revenues at the sites where they are collected. The Corps of Engineers, Bureau of Reclamation and Tennessee Valley Authority were not included in the program authorization. State agencies realize 40.2 percent of their annual budgets from recreation revenues.

The recreation revenues collected by the Federal agencies represent only the revenues the agencies collect from Federally-operated facilities. Federal recreation revenues do not include those collected from concessionaire-operated facilities. The Federal taxes generated by the total economic impact of Federal lakes is significantly greater.

The number of Federal lakes and reservoirs administered by each agency is shown below followed by a brief description of each agency and their role in providing public recreation opportunities.

Table 2

⁴ Benefits Are Endless...But Why?, Dr. Bev Driver, Parks and Recreation Magazine, Feb 98, page 26.

Agency	Total Number of Federally-Managed, Manmade Lakes
Bureau of Indian Affairs	152
Bureau of Land Management	2
Bureau of Reclamation	288
Corps of Engineers	537
Fish & Wildlife Service	138
Forest Service	268
National Park Service	82
Tennessee Valley Authority	54
United States Army	175
United States Navy	35
United States Air Force	31
Other	20
Total	1,782

Many of those lakes and reservoirs owned by the armed forces are open and available for use by the public. However, that is determined on a case-by-case basis depending on the mission requirements of the individual military installations upon which the lakes are located.

Bureau of Land Management

History. In 1812, Congress established the General Land Office (GLO) to administer the 1.8-billion-acre public domain. The passage of the Taylor Grazing Act in 1934 established the U.S. Grazing Service to provide active range management on public domain lands. In 1946, President Truman signed Reorganization Number 3, merging the GLO and the U.S. Grazing Service, and created the Bureau of Land Management (BLM), an agency of the Department of the Interior. The BLM's mandate under the Federal Land Policy and Management Act of 1976 is to manage public lands for multiple uses, while protecting the long-term health of the public lands and waters. The BLM's mission is to "sustain the health, diversity, and productivity of public lands for the use and enjoyment of present and future generations."

Current Resource Base and Visitation. Today, the BLM manages 265 million acres of public lands, located in 17 Western States, including Alaska, and small parcels of land

scattered throughout the Eastern United States. The BLM also manages 570 million acres of subsurface mineral estate. The visitation to the BLM public lands continues to increase annually. In 1997, the visitation to the BLM public lands was 62 million visits, resulting in nearly 77 million visitor days of recreation use.

Funding. The BLM is one of four agencies in the Federal Government which collects more revenue than it receives in appropriated funding. The BLM annually receives about \$1.2 billion in appropriated funding and collects more than \$1.4 billion. Much of this revenue is returned to the States in the form of Payment In Lieu of Taxes. The BLM's Recreation Program is one of the few programs under its multiple-use mandate that has garnered increases in its appropriated funding in the last few years. In 1997, the Recreation funding was \$27.72 million. In 1997, BLM Recreation Fee collections totaled \$3.6 million.

Future Management Strategies. In 1989, the BLM developed *Recreation 2000: A Strategic Plan* a comprehensive document which outlined specific policy guidance for the BLM's Recreation Program. In 1994, the BLM updated its strategic plan and crafted the *Recreation 2000 Update*. These two documents establish a clear image of the BLM's plan to provide quality recreation opportunities for the public, while sustaining healthy land and water resources. During the years of implementing *Recreation 2000* and the *Recreation 2000 Update*, the BLM has successfully moved to the forefront of many aspects of recreation management, particularly in rivers, mountain biking, and caves. Furthermore, the BLM established a national role in enhancing opportunities for America's second most popular pastime, driving for pleasure, by developing the National Back Country Byways Program. The *Recreation 2000 Update* is a realistic approach for the BLM to provide quality recreation opportunities within fiscal constraints, organizational changes, and the tremendous growth in recreation visitation.

Bureau of Reclamation

History. The Bureau of Reclamation was established by the Reclamation Act of 1902 to develop water resources in 17 Western States. Over the years, Reclamation evolved from the development of single-purpose agricultural projects toward a multipurpose approach to water resources development. The recreation opportunities afforded by Reclamation reservoirs were initially incidental benefits, but the growing popularity of Reclamation reservoirs soon resulted in project plans incorporating visitor facilities.

Current Resource Base and Visitation. Today the Bureau of Reclamation administers more than eight million acres of land and water at more than 300 developed recreation areas. Since the passage of P.L. 89-72 in 1965, as amended, Reclamation has cost-shared in the development of recreation and fish and wildlife facilities with other State, local, and Federal agencies. In general, Reclamation has turned these facilities over to the other agencies for operation and maintenance after construction was completed. Reclamation retains some management responsibilities for recreation at 51 projects and has specific authority to plan, develop, operate, and maintain recreation at only a few of these 51 projects, the largest of which is Lake Berryessa in California. The agency recorded almost 87 million visitors at its

310 recreation areas in 1993. In the same year, 294 million recreation visitor hours were recorded at those recreation areas that collected user fees.

Funding. Appropriations for the Bureau of Reclamation's recreation program have significantly decreased over the last four years from a high of \$22 million in FY 94 down to \$9.6 million in FY 97. The main reason for the decrease is that the planned construction of recreation facilities is winding down. Current legislative authority dictates that new facilities can only be built when there is an equal amount contributed by a non-Federal managing agency. For the last three fiscal years Reclamation has budgeted an average of about \$3 million for rehabilitation of recreation facilities which is to be cost-shared with non-Federal partners. Due to budget constraints, current policy is to not fund operation and maintenance of recreation facilities that are under the management of a non-Federal agency.

Future Management Strategies. The Bureau of Reclamation will continue to promote and develop non-Federal partnerships for the development and management of public recreation facilities. It is Reclamation's view that this goal will best be met if the associated costs can be shared between Reclamation and the non-Federal entities, or provided by private investors through a concession program. In compliance with the Government Performance and Results Act, Reclamation will provide recreation opportunities on project lands and waters that are environmentally compatible and compatible with other project purposes through direct management, concessions, and partnerships with State and local governments, the private sector, and other Federal agencies. Reclamation will work with its managing partners to improve recreation facilities, protect public health and safety, provide for accessibility, and collect appropriate fees. Reclamation will manage, utilize and protect project lands and waters for recreation purposes while ensuring compliance with laws, regulations, contracts, agreements and policies.

National Park Service

History. Since the establishment of Yellowstone National Park in 1872, the purpose of all national parks has been preservation. The National Park Service (NPS) was officially created within the Department of the Interior in 1916 (16 U.S.C. 1-6).

Current Resource Base and Visitation. Today, the National Park Service manages: 24 battlefield and military parks, 113 historic sites, 73 national monuments, 54 national parks, 19 national recreation areas, 15 wild and scenic rivers, 10 national seashores, and 68 other memorials, preserves, parkways, lakeshores, trails, and other properties on about 83 million acres of land and water. The agency records the third highest annual visitation for recreation of all Federal agencies, at about 1.25 billion visitor hours in 1996.

Funding. The National Park Service spent approximately \$1.6 billion to manage the National Park System in Fiscal Year 1998. Although the Park Service still accounts for more than half of all Federal spending on public lands management, its budget has declined by an average of 2 percent annually (in current dollars) and 5.8 percent annually (in constant dollars) during the 1980's.

Future Management Strategies. The National Park Service established a performance management process on September 30, 1997, which incorporates the requirements of the Government Performance and Results Act. The 1997 Strategic plan provides long-term goals which are measurable as desired resource and visitor experience conditions and expressed as measurable outcomes and quantified results. Goal categories include: 1) preserving park resources, 2) providing for the public enjoyment and visitor experience of parks, 3) strengthening and preserving natural and cultural resources and enhancing recreation opportunities managed by partners, 4) ensuring organizational effectiveness.

U.S. Army Corps of Engineers

History. The U.S. Army Corps of Engineers was officially established by the Congress on March 11, 1779. In 1872, the Corps was influential in the creation of Yellowstone, the Nation's first National Park. The Corps was charged with protection of its unique natural resources along with those of Yosemite National Park, until the creation of the National Park Service in 1916. At that time, the Park Service assumed jurisdiction over both of these units. The Flood Control Act of 1944 gave the Corps specific authority to provide public outdoor recreation facilities at its water resource projects.

Current Resource Base and Visitation. The Corps currently administers approximately 11.7 million acres of land and water at 456 lakes and waterways reporting recreation use throughout the United States. In 1997, there were 4,340 recreation areas on these projects, of which 2,500 are managed directly by the Corps. Other Federal agencies managed 68 areas, States managed 590, local governments managed 599, concessionaires managed 163 and quasi-public agencies managed 420 recreation areas. Corps projects having recreation facilities are located in all but seven States. In 1997, the Corps hosted over 2.5 billion visitor hours of visitation.

Funding. The FY 1997 Corps appropriation for recreation were \$196 million. In FY 1998, the appropriation for recreation was \$176 million.

Future Management Strategies. As the Nation's largest Federal provider of water oriented outdoor recreation opportunities, the Corps of Engineers is responsible for the provision of quality public recreation opportunities to serve the needs of present and future generations. The Corps will continue to deliver significant economic contributions and to provide stewardship of the recreation resources at Corps lakes through a dynamic mix of Corps, public, quasi-public and private sector providers. Emphasis will be placed on leveraging its resources through a wide range of alliances and partnerships with a mix of management options (e.g., public agency leases, concession leases, volunteers, contributions, challenge cost/share, and cooperating associations) to supplement Corps management. Cost recovery efforts in support of the "user pays" concept will be continued.

USDA Forest Service

History. The mission of the USDA Forest Service is rooted in many laws enacted by Congress, most notably the Organic Administration Act (1897 as amended), the Multiple-Use Sustained Yield Act (1960), the Forest and Rangeland Renewable Resources Planning Act (1974), and the National Forest Management Act (1976).

The Forest Service takes an ecological approach to the implementation of multiple use management, providing sustained yields of renewable resources such as water, forage, wildlife, wood, and recreation. The Forest Service has embraced ecosystem management as its operating philosophy and is committed to the preservation of wilderness, biodiversity, and landscape beauty as well as the protection of the basic resources of soil, water, and air quality.

Current Resource Base and Visitation. The Forest Service is responsible for the management of the 191.6 million acre National Forest System, with 155 National Forests and 20 grasslands in 44 States, Puerto Rico, and the Virgin Islands. This System covers an area about the size of the states of California, Oregon, and Washington combined. In 1996 the agency managed about 10,000 recreation sites and recorded 859.3 million recreation visits, the highest of all Federal agencies.

Funding. In FY 1996, the National Forest appropriation for recreation was \$211.1 million. In the four years preceding (1995, 1994, 1993, and 1992), recreation appropriations were \$220.1 million, \$224.5 million, \$229.7 million, and \$216.4 million respectively.

In FY 1996, the agency formed approximately 1,500 partnerships to accomplish recreation objectives. Of the 1,500 partnerships, 95 were with commercial marina operators. As one example, the Forest Service, in partnership with the National Environmental Education Training Foundation and other agencies, held the first "National Public Lands Day," a unique event predominately funded by the private sector. Several thousand people volunteered their time to rebuild recreation facilities, interpretive sites, and trails. At the Forest Service sites private sector funds provided a \$6 match for every appropriated dollar. If the value of volunteer labor is included, the ratio would be \$11 for every appropriated dollar.

In FY 1996, the agency established 48 Recreation Fee Demonstration projects and established agency direction to begin implementation in FY 1997 of pilot public/private ventures (joint public and private-sector investments) in recreation facilities and services.

Recreation appropriated funding for the Challenge Cost-Share program in FY 1996 was \$16.9 million, up from \$12 million in FY 1995. This program, combining agency and contributed funds, totaled \$54.4 million. In addition, a new challenge cost-share cooperative venture was initiated with the National Forest Foundation, leveraging \$1 million to provide a total of \$2.5 million in improvements to trails, recreation facilities, and wildlife and fish management projects.

Recreation receipts in FY 1996 totaled \$47.5 million, a one percent increase over FY 1995. Campgrounds and other facilities generated \$10 million compared with \$9.5 million in FY 1995. The fees recovered represent 22.5 percent of the total recreation appropriation.

Future Management Strategies. The 1974 Renewable Resources Planning Act (RPA) requires the Forest Service to prepare a long-term strategic planning document every five years that provides direction for Forest Service programs. In transmitting the recommended 1990 RPA Program to Congress, the President cited four high-priority themes that will receive special emphasis during the next five to 10 years: (1) recreation, wildlife, and fisheries resources will be enhanced; (2) commodity production will be environmentally acceptable; (3) scientific knowledge will be improved; and (4) global resource issues will be responded to in a responsible manner.

U.S. Fish and Wildlife Service

History. Since 1903, the Department of the Interior's U.S. Fish and Wildlife Service's (FWS) primary mission has been to conserve, protect and enhance fish, wildlife, endangered species, and certain marine mammals and their respective habitats.

Current Resource Base and Visitation. FWS areas encompass more than 500 national wildlife refuges on more than 90 million acres of land and water. Currently, 369 refuges are open to some form of public use, although recreation is regarded as a secondary use of refuge lands. The agency recorded 29 million recreation visitor days in 1995.

Funding. FWS analysts estimate that 10 percent of the agency's annual national wildlife refuge funding is spent on recreational programs. In Fiscal Year 1998, the Service requested \$19 million for refuge recreation programs, an increase of \$2.1 million over previous years.

Future Management Strategies. The FWS is involved in many public participation programs that lend financial and human support. These include volunteers, Challenge Cost-Share, Americorps, Youth Conservation Corps, Cooperating Associations and Adopt-a-Refuge programs. The Volunteer program, initiated in 1978, today has 23,000 people contributing more than 909,000 hours annually.

Tennessee Valley Authority

History. The Tennessee Valley Authority (TVA) was created by an Act of Congress on May 18, 1933, to develop the Tennessee River valley. Since its inception, TVA's recreation policy has been to identify recreation resources, to encourage development by other public agencies and private investors, to provide technical assistance where needed, and to provide basic facilities where necessary to assure safe access to the lakes and protect the shoreline. Beginning in 1937, TVA started leasing lands to non-Federal public agencies for recreation development. Outright transfer of lands to these agencies began in 1945. To date some

230,000 acres have been conveyed to other Federal, State or local agencies for recreation purposes.

Current Resource Base and Visitation. The TVA reservoir system includes approximately 600,000 acres of surface water and 11,000 miles of shoreline. Recreation facilities and services are available at 120 State and local public parks, more than 400 boat access areas, 50 group camps, and 300 commercial recreation areas. To help meet public recreation needs, TVA also operates about 100 recreation areas offering day use, boat launching, and/or camping opportunities. TVA reservoirs currently receive an estimated 110 million recreation visits per year.

Funding. Exclusive of Land Between the Lakes, TVA's current (FY 1998) budget for recreation initiatives and facility operations and maintenance is approximately \$7.7 million.

Future Management Strategies. As part of its broad integrated resource management mission, TVA will continue to promote the development of quality recreation opportunities on the Tennessee River system. Specific recreation strategies being pursued include:

- Focus operation and maintenance efforts on dam reservations and key recreation facilities and services and increase cost effectiveness and efficiency.
- Secure partnerships with other public agencies and the private sector to maintain and improve TVA-developed recreation areas.
- Establish partnerships to secure high-quality commercial recreation development at appropriate locations.
- Monitor customer needs and work directly and through others to help meet those needs.

State and Local Governments

Current Resource Base and Visitation. State parks, recreation areas, forests and wildlife areas encompass more than 11 million acres. Municipal, county and regional parks and forests account for an even larger number of recreation sites but a much smaller number of acres. According to the 1986 President's Commission on Americans Outdoors (PCAO), there are 67,685 municipal parks totaling almost three million acres. Counties administer more than 17,000 recreation areas of various types totaling over five million acres. A total of 783 million visits were enumerated by the National Association of State Park Directors from July 1996 through June 1997. The overwhelming majority of these recreationists (more than 92 percent) were day-use visitors.

Funding. The operating budget for all State parks totaled about \$1.3 billion in 1997, with outlays for fixed capital investments totaling about \$433 million more. Outlays for recreation by individual states varied widely, with the proportion of State government operating budgets spent on State parks ranging from a low of 0.071 percent in Texas to a high of .632 percent of the state budget in Alabama. Nationally, States dedicated an average

0.171 percent of their operating budgets to State park agencies. State parks systems, on the average, generate about 40 percent of their costs from fees and sales because they get to keep and use the revenues. They have an incentive. Most Federal managers do not, which creates a mind set of a visitor as an expense rather than as asset.

RECOMMENDATIONS

Recreation is a high priority for the public. Recreation needs to be a high priority for the Government. Recreation must be provided accountably, while protecting and responsibly managing the resource. Broad customer needs and requirements demand a broad range of recreation and preservation services.

Increased recent demand, aging infrastructure, and the needs and responsibilities of Federal agencies to reduce appropriations to meet Federal budget goals have created a vast gap in recreation service.

The Commission recommends two broad directions to pursue closing this gap:

- 1) providing an environment which emphasizes recreation as a priority and allows managing for success, and
- 2) protecting and managing the resource to provide recreation and all the other benefits of the resources managed by the Federal agencies.

1. Environment for success

- Invest through several mechanisms
 - Public/private partnerships
 - Public/public partnerships
 - Leverage private sector funds and license income
 - Cost share
 - Additional appropriations
- Incentives for innovation
- Demonstration program/Reinvention Laboratory
- Consistent measures/performance measures
- Federal Recreation Lakes Leadership Council
- Flexibility of operating policies

2. Protection and management of resources

- Assess the needs and requirements of customers
- Assess inventory
- Watershed focus
- Flat water/downstream balances

The following recommendations reflect review and analysis of existing research and information, as well as public input from numerous workshops and meetings. The National Recreation Lakes Study Commission believes that implementation of these recommendations would significantly improve the delivery of high-quality, environmentally appropriate recreation opportunities at Federal lakes.

1. Commit resources to and establish an interagency Federal Lakes Recreation Leadership Council to coordinate and guide the implementation of the recommendations of the National Recreation Lakes Study.

Description

The Federal Lakes Recreation Leadership Council would be formed from representatives of the Federal lake recreation managing agencies. Members would be designated by Agency heads and represent headquarters staffs as well as field operations. The chartered council would meet bi-monthly under the auspices of the Secretaries of the Interior, Army, and Agriculture and the Chairman of the Tennessee Valley Authority to implement the Commission's recommendations to enhance recreation opportunities at Federal lakes. The Council would have a life span of five years from the issuance of the National Recreation Lakes Commission Report and a small annual budget for staff, space and equipment of \$300,000.00 distributed proportionally among the seven agencies involved in recreation at Federal lakes.

Justification

The guiding principle to increase management flexibility and reward management innovation at Federal lakes was adopted in part because the Study uncovered disparate legal and administrative authorities among the agencies, as well as a wide range of administrative practices. The establishment of a Federal Lakes Recreation Leadership Council would signal the commitment of the agencies to implement the recommendations of the National Recreation Lakes Study. The Council could lead the effort to: 1) produce coherent and consistent federal laws, regulations, and policies to enhance recreation while protecting the environment at Federal lakes through a reexamination of legislated authorities and management policies; 2) find and develop new sources of adequate and sustainable funding to maintain and refurbish existing facilities; 3) promote cooperation and share new approaches among agencies and across agency jurisdictions, including regular meetings, training opportunities and interagency developmental assignments; 4) promote social and economic research about the significance and trends in recreation; 5) promote the development and consistency of data collection concerning recreation at Federal lakes; 6) provide oversight of recreation lakes reinvention laboratories; 7) develop consistent guidance to encourage needed commercial recreation facilities; and 8) develop ways to reward innovation and management flexibility of lake managers.

Implementation

There are several approaches available to establish the Federal Lakes Recreation Leadership Council: through an Executive Order signed by the President; administratively through a Memorandum of Understanding among the Secretaries of the Interior, Army, and Agriculture and the Chairman of the Tennessee Valley Authority; or through new legislation.

2. Apply to the National Partnership for Reinventing Government (NPR) (formerly the National Performance Review) for approval to implement the Commission recommendations in a designated Reinvention Laboratory with lake demonstration projects at selected sites throughout the country.

Description

The Commission Report includes numerous recommendations that will require testing at Federal lakes. The effective application of some of the recommended actions will require an administrative waiver of regulations, innovative approaches to operations, special program funding authorities, and incentives for field employees to participate. The proposed Federal Lakes Recreation Leadership Council will apply to the NPR for Reinvention Lab designation. Lab designation provides a single source of authority for the Council agencies to participate in implementing the Commission recommendations and to explore new approaches at Federal lakes. The expected duration of the Lab is 2-3 years with a funding requirement of \$1 million per year per lake.

Justification

Throughout the Commission proceedings, representatives of public interests suggested that agencies test the viability for private sector and State ideas to enhance recreation at Federal lakes. Participants at the Barriers Workshop specifically recommended a barrier reduction demonstration project, whereby agencies would lift identified barriers to recreation enhancement at specified lakes and thereby test the viability and effectiveness of various innovative approaches. Successful approaches could form the basis for a process to develop a National Recreation Lakes System.

Participating agencies have a range of authorities available to them with which to demonstrate how recreation can be enhanced by lifting administrative, legislative, operational, and cultural barriers. As the Director of Colorado State Parks stated at the November 1998 meeting, there are many opportunities to enhance recreation at Federal lakes that can be achieved within existing operating constraints, if lake managers invest in partnership development, use funds more creatively, and focus on recreation as a primary lake management goal.

The labs will provide the management flexibility to try new management actions designed to enhance the recreation opportunities at Federal lakes while protecting the lakes' resources. One goal of the demonstration projects will be to provide clean, safe, and attractive recreation facilities.

Implementation

As its first order of business, the Federal Recreation Lakes Leadership Council will make application to the NPR for designation as a Reinvention Laboratory.

3. Establish a process to demonstrate the desirability of a National Recreation Lakes Program. Through several demonstration pilots, develop and evaluate the guiding principles, criteria and designation process for a national program.

Description

Two findings papers, “Designation Considerations for a National Recreation Lake System” and “Feasibility of a National Recreation Lake System,” reviewed existing national designated systems and identified the benefits and concerns of establishing a National Recreation Lakes System. Conclusions from those reports do not provide adequate justification at this time to recommend a national lakes system. On the other hand the conclusions could not preclude the possibility of such a system in the future. The concept of a National Recreation Lake designation could be tested through lake demonstration projects. The desirability of a national system and which lakes would be good candidates for designation could be evaluated at the conclusion of the Reinvention Laboratory demonstration.

Justification

Public Law 104-333, directs the National Recreation Lakes Study Commission, to prepare a report that includes “recommendations on alternatives for enhanced recreation opportunities including, but not limited to, the establishment of a National Recreation Lakes System under which specific lakes would receive national designation and which would be managed through innovative partnership-based agreements between Federal agencies, State and local units of government, and the private sector.” The Reinvention Lab would specifically review the alternatives, and if determined to be in the public’s interest, would develop system characteristics, nominating criteria, and procedure and management guidelines for an interagency system of National Recreation Lakes.

Implementation

Apply to the National Partnership for Reinventing Government (NPR) for approval to implement the Commission recommendations in a designated Reinvention Laboratory with lake demonstration projects at selected sites throughout the country. The interagency Federal Lakes Recreation Leadership Council would oversee the implementation of this demonstration project.

4. Federal agencies need to operate Federal lakes to optimize water use for all purposes instead of operating to maximize water use for one or two purposes.

Description

Many Federal dams and their lake and downstream levels are managed in a way that gives primacy to one or more purposes, sometimes to the exclusion and detriment of other uses and purposes, such as environmental restoration, species protection, flat water and downstream recreation.

A more holistic or integrated approach to water supply and demand is needed and can supply a broader range of benefits to the public. The Tennessee Valley Authority offers a model of integrated management of water uses which the Commission believes can be adopted successfully by all agencies at Federal lakes.

Integrated management of water supply and demand requires intensive and extensive communication with all stakeholder groups. It does not mean that all users, such as recreationists, get what they want or need all the time. It does not mean that primary purposes are ever less than first in management plans. It means that when contracts can be honored and recreation still accommodated or the health of the environment enhanced, an effort will be made to accomplish both. It is the management of such accommodation whenever and wherever possible.

Justification

Changes in environmental law and regulation, scientific knowledge and practice, and increasing public recreation demand require more of Federal dam operators and Federal lake managers than was apparent at the time of original authorizing legislation and financial agreements for these projects. Integration of the changing needs of water users in planning and operation creates opportunities, not guarantees, that non-contractual users are considered in decision-making and the public receives the greatest number and variety of benefits from Federal management of the resource. It is this consideration that will reduce present and future conflict over water use and resource stewardship.

Implementation

Agencies do not need additional authority or additional appropriations to manage for optimal water use and can achieve new operating flexibility within current authorities.

5. Develop and adopt policies and procedures for commercial recreation activities that are consistent for all Federal lakes.

Description

All Federal agencies that have management responsibilities for dams, the lakes behind them and the land base that surrounds them have the authority to enter into contracts with the private sector to provide recreation facilities and services to meet the demands of the visiting public. Each agency has developed its own policies and procedures to provide for these

facilities and services. Agencies must understand the needs of the private sector as both public and private sectors provide positive recreation experiences to the American population. Several recent reviews including this Study have concluded the Federal agencies should jointly develop a common policy and accompanying procedures for commercial recreation activities at Federal lakes. An excellent starting point would be to review, modify and implement the Memorandum of Understanding (MOU) signed by several Federal agencies in 1995 regarding concessions management. That MOU contained guiding principles and recommendations that the signatory agencies agreed to follow.

Justification

The Study's report entitled, "The Overview of Recent Legislation and Policy Recommendations Concerning Private Sector Management of Commercial Recreation Activities," reviewed several recent Federal efforts to reform concession policy. From the more than 30 reviews conducted by the General Accounting Office, the Secretary of the Interior's Task Force on Concessions Activities, and the recently enacted legislation on concessions (P.L. 105-391), several conclusions can be reached. First, private sector investment, development and management of recreation facilities for the visiting public significantly contributes to being able to provide quality recreation experiences, and adequate incentives must exist to attract that expertise. Second, in meeting their stewardship responsibilities, the Federal agencies must maintain control of the development on their lands and waters, and receive a fair fee from profit making operations. And third, there is little consistency among agencies in the policies that guide commercial recreation activities on Federal lands and waters. Recommendations from the Study's barriers workshop, presentations to the Commission, and stakeholders have endorsed the development and implementation of a consistent commercial recreation activity policy as described in the 1995 MOU. The Commission endorses the MOU approach to having all agencies adopt policies and procedures for commercial recreation activities that are consistent for all Federal lakes. The Commission further directs the agencies to support the needs of the private sector in supporting their need to: 1) capitalize their long-term investment, 2) provide an opportunity to make a profit, 3) recognize successful operations by renewal of contracts, 4) accept the private sector innovations in providing facilities and services to the visitor.

Implementation

This effort could be assigned to the Federal Lakes Recreation Leadership Council and the procedures that are developed could be applied at the reinvention lab sites.

6. Restore adequate funding for nonpoint source pollution projects under the Clean Lakes Program.

Description

The Environmental Protection Agency's (EPA) current watershed-based approach to protecting and enhancing our nation's waters places inadequate emphasis on lakes. EPA has not provided funding for Section 314 of the Clean Water Act, the Clean Lakes Program, in the past five years.

EPA's recently issued "Guidance on Use of Clean Water Act and Safe Drinking Water Act Authorities to Address Management Needs for Lakes and Reservoirs" encourages EPA Regional authorities and the States to recognize the importance of lakes and reservoirs as key elements of the aquatic ecosystem. However, this guidance does not provide resources for the full range of activities that were formerly authorized under the Clean Lakes Program.

Justification

In our findings report, the Commission examined ways to enhance recreation at Federal lakes that minimizes impacts to the environment. The Commission believes The Clean Lakes Program addresses the special needs of lakes. Recreational fishery resources, lake habitat, lake water quality, sediment buildup, and invasions by nonindigenous aquatic plants and animals are not addressed by cleaning up the watershed alone.

The Commissioners believe that EPA needs to provide a special focus on lakes where citizens' concerns lie. The Clean Lakes Program operates at the community level and has been extremely successful in educating citizens about local water quality issues and empowering them through volunteer lake monitoring efforts.

The North American Lake Management Society reports that 37 States saw their lake programs in jeopardy and preferred to return to non-point source funding under the Clean Lakes Program. These States were not able to secure funding for lake diagnostic studies, demonstration projects, and volunteer lake monitoring programs. Congress' Great Lakes Task Force comprising Senators and Representatives from the Great Lakes region have respectfully encouraged EPA to provide adequate funds for this program.

Implementation

The EPA Administrator restores funding to the Clean Lakes Program under Section 314 of the Clean Water. EPA's Assessment and Watershed Protection Division would reports annually on projects undertaken with Section 314 funds.

7. Revise the Recreational Fees Demonstration Program to include the Bureau of Reclamation and the Corps of Engineers and allow fee revenues to be retained at the management unit where collected and used for operations and maintenance costs.

Description

The Recreational Fees Demonstration Program (commonly called the Fee Demo Program) was authorized by Section 315 of the Fiscal Year 1996 Interior and Related Agencies Appropriations Act. The program authorizes the National Park Service, Bureau of Land Management, Fish and Wildlife Service and Forest Service to implement and test new fees across the geographic and programmatic spectrum of the sites that they manage. The program allows the participating agencies to retain all of the demonstration project revenues, and to retain at least 80 percent of the revenues at the sites where they are collected to be used without restriction. The program was recently extended to continue through September 2001.

There has been strong public support for fee revenues collected and retained at specified sites for the improvement of visitor services. Visits to sites with higher fees, used for improvements, increased by 5 percent in 1997, while visits to sites without such fees increased by 4 percent. Clearly the public understands that an investment in the quality of the recreation experience has value.

As of September 30, 1997, there were 97 National Park Service demonstration projects, ten Bureau of Land Management projects, 61 U.S. Fish and Wildlife Service projects and 40 Forest Service projects. The agencies collected \$138,775,000 in revenues from all recreation fee sources during the first year of the program (FY 1997) at Fee Demo Program sites. This represents an increase of \$53,493,000, or 61 percent, from revenues collected the previous year, a gain that is attributable to the Fee Demo Program.

The flexibility provided through the Fee Demo Program to the agencies has resulted in innovative approaches to fee collection and a high level of responsiveness to the public in the design and implementation of fee programs and provided an incentive for innovative and flexible management.

The Corps of Engineers, the Bureau of Reclamation and the Tennessee Valley Authority are not currently included in the program. These three agencies receive their funding from a different appropriation subcommittee than the agencies/bureaus included in the Fee Demo Program. The Tennessee Valley Authority has had the authority to retain fees without further appropriation for 65 years.

It is important that future fee programs include these agencies and enable them to develop an entrepreneurial approach to service delivery. If agencies experience the ability to reinvest revenue, they can demonstrate that it can be tied to higher service levels. Further, permanent statutory authorization would allow agencies to strengthen multi-agency and multi-governmental fee arrangements and make the long-term plans and investments in fee collection infrastructures needed for an efficient fee program. It would also provide the stability for agencies to establish procedures for collecting, tracking, and allocating fee receipts in a clear, accountable efficient manner.

Justification

The American public deserves high quality recreation experiences and value for fees paid. A consistent theme from service providers and system users was that deferred maintenance of facilities is eroding the opportunities for recreation

The Fee Demo Program is a success to date. The program encourages innovation and partnerships with other Federal agencies, States, and local government providers of recreation and the private sector. The fees are retained in the management unit at which they are collected to cover the cost of collection as well as to reduce the maintenance backlog of the infrastructure for the activities that generated the fees. Combined with current appropriation levels, this is a formula that adds value to the public's recreation experience.

The Fee Demo Program should be made permanent and expanded to include the Bureau of Reclamation, the Corps of Engineers and Federal lakes managed by the National Park Service and Forest Service.

Implementation

Implementation of this recommendation requires legislation to include the Bureau of Reclamation and the Corps of Engineers in the Fee Demo Program. Legislation is required to make the Fee Demo Program permanent.

8. Change Bureau of Reclamation and Corps of Engineers policies to allow them to cost-share with their non-Federal governmental partners for rehabilitation of recreation facilities developed in conjunction with States and local governments and amend Public Law 89-72 to repeal the requirement that the Bureau of Reclamation and Corps of Engineers can only develop new recreation facilities through cost sharing agreements with non-Federal governmental entities.

Description

Absent specific recreation construction authority, the Federal Water Projects Recreation Act, Public Law 89-72, requires that recreation facilities at Federal lakes be constructed only in partnership with a non-Federal Government entity and that the non-Federal partner be responsible for all operations, maintenance and rehabilitation costs of the recreation facilities at these lakes. The law did not allow for the cost-sharing of operation and maintenance of recreation facilities.

The Reclamation Recreation Act of 1992 (P.L. 102-575, Title 28) amended Public Law 89-72. That amendment expanded the Bureau of Reclamation's and Corps of Engineers' authority to cost-share with non-Federal public entities for rehabilitating, operating and maintaining recreation facilities; removed the limit \$100,000 for Federal contribution to recreation facilities for a pre-1965 project; allowed cost-sharing up to 50 percent of the cost of planning studies for development, modification, and expansion of recreation facilities; allowed recreation facilities to be developed with up to 50 percent Federal funding; allowed

recreation facilities that do not meet current demands to be expanded or modified with up to 50 percent Federal cost-sharing; and the authority to “expand or modify” facilities given in the statute was taken to include rehabilitation of facilities.

There are more than 800 State parks on Federal lakes managed by the these two agencies. The potential cost of this amendment to Public Law 89-72 is significant. Therefore, the Corps of Engineers established a policy whereby funds would not be made available for sharing in the cost for rehabilitating, operating and maintaining recreation facilities in those State parks. Corps of Engineers policy requires the closure of parks turned back by non-Federal governmental entities.

Since 1971, 22 recreation areas have been returned to the Bureau of Reclamation by non-Federal governmental entities due to inadequate funding. Late in 1993, in response to the new authorities given it by the Reclamation Recreation act of 1992, Reclamation announced a new policy on cost-sharing. At the same time, Reclamation announced a limited program of cost-sharing with Colorado State Parks. This was to be a test case to explore how the two agencies jointly might pay operating, maintenance, and rehabilitation expenses of recreation facilities at five Reclamation reservoirs on Colorado’s Western Slope. Specifically, Reclamation wanted to assess the budget and oversight requirements of such a collaborative program. A 12-year, \$30 million agreement was signed in 1994 and the partners began sharing the rehabilitation expenses for recreation facilities managed by Colorado State Parks at five reservoirs.

Justification

The Bureau of Reclamation and Corps of Engineers need to have the same flexibility to provide recreation facilities as the other Federal land management agencies. Except for a few instances, recreation facilities at lakes managed by these two agencies have not be updated or expanded to meet increasing and new public demands since the late 1960’s. Non-Federal government cost sharing partners have been unwilling and, in many cases, unable to participate in new recreation facility development. Therefore, supply has not kept pace with demand.

There are more than 800 State parks on Federal lakes managed by the these two agencies. Many of the recreation facilities at State parks on Federal lakes were developed in the 1960’s and are in need of rehabilitation and upgrade. The cost of rehabilitating the existing facilities and adding facilities to meet increasing demand is prohibitive to the non-Federal governmental entities managing those parks. The alternative is for the parks to be returned to the Bureau of Reclamation or the Corps of Engineers and be funded entirely with Federal funds or closed. Closing these parks will deny public access to the water for recreation. Cost-sharing in the rehabilitation, modification, operation and maintenance of those facilities would be cheaper for the Federal government to operate in the long run and in the best interest of the public.

Implementation

This recommendation can be accomplished within existing authorities if funding sources can be identified *without adversely impacting* the level of normal operating and maintenance funds appropriated annually. A separate line item in each agency's budget could serve to manage the funding requirements and force prioritization of need.

9. Amend Wallop/Breaux to eliminate the Federal grant-in-aid requirement for State matching funds when projects benefit Federal lakes.

Description

The purpose of this recommendation is to allow the States to use Federal grant-in-aid funds for projects that benefit recreation and recreational resources at Federal lakes without the necessity of providing a non-Federal share of project costs.

The Rules and Regulations for the Federal Aid in Sport Fish and Wildlife Restoration Programs (Wallop-Breaux and Pittman-Robertson) are codified in Federal regulations. Federal participation is limited to 75 percent of eligible costs incurred in the completion of approved work. The Federal share may be increased to 90 percent when two or more States work cooperatively to restore threatened or endangered species.

The Transportation Equity Act for the 21st Century (commonly referred to as T-21 and formally cited as the Sportfishing and Boating Safety Act of 1998) amended many provisions of the Aquatic Resources Trust Fund (Wallop-Breaux) but left intact the matching fund provisions of 75 percent Federal and 25 percent State funds. Individual projects under other sections of T-21, such as scenic byways, recreational trails, and enhancements must match the Federal donation at the ratio of 80 percent Federal and 20 percent State funds.

The Land and Water Conservation Fund was enacted in 1964 (P.L. 88-578) to create and maintain high quality recreation areas and facilities. Federal dollars are matched by equal State and/or local contributions, that is: a 50-50 match.

In all of the above programs, the non-Federal cost share may not be derived from other Federal funds. The non-Federal cost share may be in the form of cash or in-kind contributions. States have routinely used hunting, fishing, and trapping license revenues, State gasoline taxes, real property, and general fund revenues as cash contributions. In-kind match is allowed if it is necessary and reasonable for the efficient accomplishment of the specific project objectives.

Justification

Eliminating the grant-in-aid requirement for State matching funds where the Federal Government receives significant benefits would directly enhance recreation at Federal lakes. States that are experiencing difficulty in providing the necessary match would be freed from this requirement.

Implementation

The Federal Aid in Sport Fish and Wildlife Restoration Acts, the Transportation Equity Act for the 21st Century, and the Land and Water Conservation Fund Act would need to be amended. These Acts were re-authorized in 1998. The next re-authorization is scheduled for 2003.

10. Earmark a percentage of Wallop/Breaux administrative funds for tribal recreation lake development projects.

Description

Many tribes would like to further develop their recreation facilities on both the Federal lakes and natural lakes on tribal lands. However, the tribes lack a consistent source of funds to develop their facilities. The Aquatic Resources Trust Fund (Wallop/Breaux) is administered by the U.S. Fish and Wildlife Service. These funds are generated from excise taxes on sport fishing and boating equipment and totaled approximately \$443 million in Fiscal Year 1998. Funds are apportioned to States based primarily on land areas and public use levels.

The Secretary of the Interior retains six percent of the total Wallop-Breaux funds to administer the program. The Secretary is authorized to use these funds for direct oversight and to undertake projects that benefit the Nation's sport fishery resources. The Secretary of the Interior could establish a Tribal Recreation Lake Development Program under existing authorities. One percent of the six percent administrative could be ear-marked for this purpose. This earmark would make approximately \$4.4 million available annually. Tribal lakes that receive development funds would then be open to the public.

Justification

Indian lands are included in a State's land base. Tribes are excluded from the Wallop/Breaux funds even though tribal members pay the same taxes on this equipment as does the general public. Tribes are limited in their ability to fund recreation development. A small percentage of Wallop/Breaux funds would go a long way on tribal lands in allowing the tribes to construct boat ramps, sanitary facilities, access areas, fishing piers and similar recreation developments within the guidelines of Wallop/Breaux funding.

Implementation

The Secretary of the Interior could establish a Tribal Recreation Lake Development Program under existing authorities and earmark one sixth of the administrative set-aside for this purpose.

11. Through a framework established by the Federal Lakes Recreation Leadership Council, conduct assessments at Federal lakes to determine customer needs, infrastructure and facility needs and natural resources needs.

Description

Justification

Implementation

12. Consider downstream recreation activities at Federal dams, including canoeing kayaking, rafting and fishing, as integral elements of the project operations process. Include opportunities to enhance downstream recreation during demonstration projects.

Description

Justification

Implementation

13. Establish a common and consistent water-related recreation performance measure for all Federal lake management agencies.

Description

Performance standards of the Government Performance and Results Act (GPRA) direct all Federal agencies to base their work on performance management, through the use of measurable goals, to provide a process to ensure the agencies are doing the right things for the right reasons. Each agency now develops a strategic plan for each subunit (park, refuge, forest) explaining why the unit exists and what its mission is, what goals management and staff should be achieving to fulfill its mission, and how they will organize to achieve the goals within specific timeframes.

Since this is a relatively new program, current agency GPRA plans are not using a consistent definition for measures, goals, and objectives. As agencies developed performance measures, they did not consult with one another. It is recommended that the agencies should work together and create one set of goals, standards and measures which strive to bring

consistent measures across agency lines. For example, surveys are a part of the GPRA program to show agencies how they are meeting their goals. Survey counts of recreation enthusiasts at Federal lakes would quantify if the agencies are meeting their goals.

Justification

The Commission has been briefed in the “Identify how enhanced recreation opportunities can be measured -- quantity and quality” paper on September 10, 1998, that there was no consistent measure for recreation that all agencies used. This lack of consistency does not permit the Administration, Congress or the public to understand if the agencies are providing quality recreation on the Federal lakes. The creation of one set of goals and standards to judge their achievement would be a step toward measuring the enhancement of recreation opportunities at Federal lakes.

Implementation

Each Secretary/Chair directs their agency to construct a consistent common set of water-related performance measures for all Federal lake management agencies for their GPRA Performance Standards, including the Corps of Engineers, which currently has no goal or measure to address recreation. This could be accomplished by the agencies working together on this project on an *ad hoc* basis to accomplish this recommendation. No new legislation, regulations or funding will be required.

This recommendation could also be managed by the interagency Federal Lakes Recreation Leadership Council.

14. Establish regular inter/intra-agency and private sector development assignments, exchanges and meetings for Federal lakes’ supervisors and staff to enhance expertise and understanding.

Description:

Providing education and training to Federal employees and managers is a goal of all Federal agencies. Educating Federal lake managers on other agencies’ and private sector management practices, will provide new thinking and problem solving to all agencies, as well as providing cross agency experience for managers and staff expanding their knowledge and understanding.

Developing a regular exchange of information and heightening expertise and understanding of the uniqueness of Federal lakes would greatly enhance the ability of managers and staff to provide strong customer service and address lake issues. Gaining knowledge of the best practices of the private sector will add to the knowledge base of managers and staff. The Commission observed lake managers who are innovators. These leaders leverage resources to solve challenges by using programs such as adopt-a-lake/shoreline/park/campground,

supporting friends groups, using Federal prison labor to address facilities maintenance, etc. Through exchange of information at workshops, and through training and development assignments and Websites, the transfer of information would assist in problem solving at Federal lakes.

Justification:

The Commission has been encouraged as a result of the comments from the Barriers Workshop participants to provide continuous interagency manager/staff training sessions on lake recreation issues. In their recommendations they stated “Agency needs a paradigm shift; leadership needs to walk the walk and talk the talk with organization and budget support, and training, technology transfer.” The participants directed the agencies to identify a professional liaison to manage the partnership process and make business training a prerequisite for management positions. The Commission, whose collective experience in the government and private sectors, strongly supports providing both government and business experiences for development assignments to enable the lakes managers and staff to use the broadest knowledge to bear on the challenges of Recreation Lakes.

Implementation:

Each Secretary/Chair directs their respective agencies to construct an exchange program to bring the highest level of business expertise to bear on government challenges. This could be accomplished by the agencies working together on an *ad hoc* basis to accomplish this recommendation. No new legislation, regulations or funding will be required. This recommendation can also be implemented by the interagency Federal Lakes Recreation Leadership Council.

15. Endorse the implementation of the National Recreational Fisheries Conservation Plan at Federal lakes.

Description

Executive Order 12962 established the National Recreational Fisheries Coordination Council whose members represent 15 Federal agencies. The Council was required to develop a conservation plan to identify strategies for improving fishery habitat and increasing angling opportunities. Each agency developed action plans to implement the strategies and are in the second year of the program. The Federal lake management agencies could give special consideration to implementing the recreational fisheries action plans at the Federal lakes.

Justification

The basic objective of the recreational fisheries conservation plan is closely aligned with the goals and guiding principles of the National Recreation Lakes Study. Improving the habitat for the fish, increasing the opportunities for the angler, educating the public about

recreational fisheries programs, and developing partnerships to achieve these actions are all means of enhancing recreation and conserving the environment. The agency action plans have the support of an Executive Order, the involvement of 15 Federal agencies, and the overview of a Secretarial advisory board - the Sportfishing and Boating Partnership Council. Many interest groups support this Administration initiative. It has received approval from the Congressional appropriators in that \$36 million was added to the FY 1999 budget to be spent over the next 5 years to develop a public outreach plan to promote sportfishing and boating.

Implementation

Each agency's recreational fisheries action plan should be amended to reference the National Recreation Lakes Study Commission. The plans should identify how the actions support the goals and recommendations of the Study. Specific management actions to achieve recreational fisheries goals can be demonstrated at the reinvention labs.

16. Encourage private recreation interest groups to organize to assist the Federal government in raising awareness of recreation lakes and raising funds for the support of recreation lake improvements.

Description

The organization would be an association of national recreation and environmental interest groups that offer special support to recreation activities at Federal lakes through private funding.

Justification

The recreation industry identified several of the problems and provided the impetus for this study of Federally-managed manmade lakes. Using the study information, the industry and the various constituencies with a stake in the future of Federal lakes could help raise the profile of Federal lakes as America's water recreation "crown jewels."

They can also help to identify "destination lakes," lakes with potential to become vacation as well as day-use destinations given the appropriate private capital investment.

They can work with managers of Federal lake facilities to support "adoption" programs--adopt-a-lake, adopt-a-shoreline, adopt-a-campground, etc.--which promote environmental values and alleviate grounds maintenance costs.

Implementation

A special support group could be formed through informal associations of national recreation interest groups or more formally through legislation or any combination of National groups in between.

APPENDIX B
LAKE MANAGER INVITATION



THE NATIONAL RECREATION LAKES STUDY



Dear

The Omnibus Parks and Public Land Management Act of 1996 created a commission to conduct a National Recreation Lakes Study to “review the current and anticipated demand for recreational opportunities at federally-managed manmade lakes and reservoirs” and “to develop alternatives for enhanced recreational use of such facilities.” Our work is coming to a conclusion. We have drafted a report with recommendations and are gathering comments from the Federal agencies and other stakeholders.

We believe it is extremely important to hear directly from lake managers how the recommendations would affect the lakes you manage. You have been designated by your agency as a manager with extensive experience in lake management.

You are invited to participate in a workshop, along with lake managers from the other Federal agencies, on January 20-21, 1999, in Arlington, Texas to provide feedback to the draft recommendations of the National Recreation Lakes Study Commission.

The one and a half day workshop will take place at the Radisson Suites Hotel - Arlington, 700 Avenue H East, Arlington, Texas. The workshop will begin at 8:00 a.m. on January 20 and end at noon on January 21, 1999. A block of rooms has been reserved for \$94.00 per night. Individual reservations must be made by January 5, 1999, by calling 817-640-0440, in order to receive this room rate.

Transportation from the Dallas/Ft Worth Airport to the hotel is a 15 minute ride by taxi (Airport Taxi - \$20.00 and Checker or Yellow Cab -\$32.00). No hotel shuttle is available.

Please call Jeanne Whittington at 202-219-7104 with your acceptance or declination of this invitation by December 22, 1998.

On January 14, 1999, immediately upon the completion of the January 1999 National Recreation Lakes Study Commission meeting, the latest version of the draft report and recommendations will be sent to you via overnight mail. Commission members Dr. Westphal, Mr. Lyons and I look forward to your participation in this critical workshop and hearing your views on the report and recommendations.

Sincerely,

Bob Armstrong
Chairman

www.doi.gov/nrls/

APPENDIX C
PARTICIPATING LAKE MANAGERS

Lake Managers Workshop on the NRLSC Report

January 20-21, 1999

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APPENDIX D
AGENDA: LAKE MANAGERS' WORKSHOP

National Recreation Lakes Study Commission Lake Managers Workshop

Agenda January 20-21, 1999

January 20, 1999

- 8:00 a.m. Welcome/Introductions - Chairman Armstrong (Topaz Room)
- 8:20 History of the effort to date - Jana Prewitt
- 8:30 Overview of the recommendations - Bruce Brown
- 9:15 Opening Comments/ Charge to the Lake Managers - Dr. Westphal
- 9:30 Explanation of the process to be followed - Lead facilitator (10 minutes)
- 9:40 **Break** (Refreshments)
- 10:00 Breakout sessions (* in the Garnet Room)(# in the Amber Room)
- 12:00 p.m. **Lunch**
- 1:00 Breakout sessions
- 3:00 **Break** (Refreshments)
- 3:15 Breakout sessions
- 5:00 **Adjourn for the day**

January 21, 1999

- 8:00 a.m. Spokesperson from each group reports group results to the Commissioners and the members of the other group (45 minutes each group) (Topaz Room)
- 9:30 **Break** (Refreshments)
- 9:45 Group discussion on breakout group results and other related issues - Lead Facilitator
- 11:00 Closing Remarks - Commissioners
- 12:00 p.m. **Adjourn**

APPENDIX E
LAKE MANAGERS' ORIGINAL POSTED POINTS
BY RECOMMENDATION AND QUESTION

I. Recommendation 1

A. Question 1 - What value does this recommendation have to you as a lake manager?

- Vehicle to help focus needs at field level and communicate those needs.
- Help carry through recommendations
- Reduce/eliminate sacred cows
- Shows commitment to recreation
- Training and crosses agencies trends (broken or not)
- Promotion of research
- Makes money go further
- Consistency
- Learn about new partnership
- Objective protection of resources
- Value of reexamination of authorities and policies
- Leadership council raised too high
- Look at regional level
- Local involvement
- Concern about data need level of effort to collect data form/format, ? Value
- New organic act '96 FWS
- Council - recommendations - implementation
- Control and implement
- Serve as unbiased group
- Sharing raise consciousness
- Nationwide and regional consistency and informed leadership

B. Question 2 - What value does this recommendation have to the public you serve?

- Help set standards/recognize by the public, more public involvement
- Ongoing forum of exchange "look at new things, move through barriers"
- Provide place to go to access information "clearinghouse"
- Focus point for interest groups
- Promote consistency of operations
- Increased funding and quality information
- Research/data collection value ?
- Progress must be made in eliminating multiagency jurisdiction
- Move complacent managers
- Educate public
- Promote recreation value of facilities
- Public gets more involved in reinvention of government
- Public has new desires, vehicle for buy-in/change
- "Public vehicle = lobby"; but must be responsive to public - timeliness/responsiveness

C. Question 3 - How will this recommendation affect you?

- Move toward standards/goals/objectives
- Provide guidance to recreation planners
- Benchmarking off leaders and ideas

- Relief to know momentum will carry forward
- No impact for FWS Forum; open to innovative new plans
- Beneficial if coherent list of all lakes and agencies helps public
- Another damn report
- Opportunity to discuss with public and promote
- Advocate for our needs
- Avenue for partnerships
- Facilitate change
- Double-edge sword; creates tools and increases responsibility/workload
- Sharing success and failures as well as lessons learned
- If council goes through positive impact
- Concern about data form/format

II. Recommendation 2

A. Question 1 - What value does this recommendation have to you as a lake manager?

- Good experience - (1) resources, (2) attention, and (3) gets through barriers
- What worked today may not work tomorrow
- Experimental management
- Opportunity to be bold, focus on big picture
- Horizontal relationships, vertical changes
- Gives agencies reason to collaborate and disseminate findings
- Money and waivers of regulations
- Allow implementation of good ideas that might have been negated by agencies
- Remove risk of failure allows to look for new opportunity
- Opportunity for management to be flexible and do something different
- Share ideas not table/shelve ideas
- Reduce barriers
- Change focus from "can't" to what "can be" done
- Go beyond recreation focus

B. Question 2 - What value does this recommendation have to the public you serve?

- Cut through bureaucracy/red tape, has significant potential
- How do we recreate government with public and change public mind set?
- Gaining public support, project benefits
- Could do things in better manner (efficiency)
- Provide justification and rationale for "new" ways, why?
- Promotes public support for change
- Meet identified needs of the public
- Concern - length of time, go through and then "revert" to old ways causes confusion
- If entails more fees, address public
- Forum \$300,000 and \$1,000,000 per demo lake per year
- Implement positive change faster, mgt changes
- Public benefit, same \$ with efficiency plus partners = improvement, more bang for the buck

C. Question 3 - How will this recommendation affect you?

- Increases workload if chosen
- Morale booster
- Provide opportunity to try new
- Boosts own, staff, and public morale
- Personal involvement in initiating change
- Concern about implementation and transition
- "Hell of a challenge," some ready
- Provides services/facilities currently needed but not available
- Lessons learned (demo) - wider audience
- Concern removal of lab authority would create confusion
- Will need waivers on regulations
- Being able to say "yes" more
- Better relationships with permittees, public, and others
- Provides more resources
- Difficult sell - high mgt risk
- More work? Fee demo and "after life"
- Provide top mgt indication of forward movement and spinoff
- Provides project recognition

III. Recommendation 3

A. Question 1 - What value does this recommendation have to you as a lake manager?

- Need established process (to provide guidance; council - arbiter of criteria) (program - forum tested through recommendation 2)
- Can't separate from recommendations 1 and 2
- Means to measure
- Blank check (not burdened by regulations etc.)
- Gives interest groups something to promote/nominate, etc.
- Group finds this recommendation confusing

B. Question 2 - What value does this recommendation have to the public you serve?

- Economic stimulus to be part of "designation"
- If money flows then benefit if not, worse off
- Pilot program shines builds public trust - allies
- Forum for public to focus on lakes

IV. Recommendation 4

A. Question 1 - What value does this recommendation have to you as a lake manager?

- Currently everything is based on benefit/cost ratios
- Criteria (initial) may be outmode, many have mandates that hamstrings how much latitude do we really have in optimizing?
- Excellent recommendation; collaborative dialogue and needs strong direction down

- Most beneficial with insurmountable obstacles (enabling legislation/constituency) - some will need Act of Congress

B. Question 2 - What value does this recommendation have to the public you serve?

- Recreation has been "red headed" step child
- Recreation is real to public
- Optimize will provide focus - needs definition (Arizona Power Companies)
- Can expand overall benefits of a project (e.g. downstream fishery)
- Disenfranchised public in past, this provides a fairway to deal
- Educate public on competing interest
- May not be possible, state representatives, federal judges, and politicians
- Save general public money (cooperation)

V. Recommendation 5

A. Question 1 - What value does this recommendation have to you as a lake manager?

- Benchmarking guidelines to local land (needs additional clarification)
- Comprehensive yet flexible
- Need something in place yet consistency across agencies
- Different marinas - different permits
- Lease holder, state agency - concessionaire owns
- Implications?; regions?; rules?
- Guidelines vs. policy and provide for innovations
- May require management by one agency if standardization is goal
- Requires time to develop guidelines but worthwhile
- Keep money at project level (TVA)
- Fair return with concessionaires profit and project
- Revise concessionaire policy and guidelines
- Guidelines yet flexible

B. Question 2 - What value does this recommendation have to the public you serve?

- Aside from the fee issue, public could benefit by consistent service, (e.g. "All commercial marinas have in case styrofoam)
- Antithesis of innovation
- More understanding if consistent guidelines
- So many players, Congress etc.
- Consistency builds "trust" with concessionaires
- To do "new" business
- Impacts commercial
- Wider range of recreation services/opportunities
- Question benefit to public

VI. Recommendation #6 - Value Impact Park Manager

A. Question 1 - What value does this recommendation have to you as a lake manager?

- Motherhood and apple pie
- EPA 314 - leverage/cost share
- If take money from "clean" lakes to fund "dirty" not good
- Totally supportive, especially on watershed basis - promotes interagency cooperation
- Requires money
- Support "clean water"
- Good public relations
- Need scientific basis

B. Question 2 - What value does this recommendation have to the public you serve?

- Clean and clear water (water quality)
- Education opportunity (need to do even more)
- Downstream municipality benefits
- Health and safety facilities (e.g. restrooms)
- Exotics

VII. Recommendation #7

A. Question 1 - What value does this recommendation have to you as a lake manager?

- Provides additional funding and builds public interest/involvement
- Some agencies will reduce base funding which equals a net loss (pay to collect)
- Reclamation
- Should supplement the allocated funds
- Agencies need to be careful
- Capital investments - \$ 10%
- Concession contracts - agency fee demo
- Dollars determined to be fair share to government through concession contracts/fees are retained by the collecting entity/project

B. Question 2 - What value does this recommendation have to the public you serve?

- Educate public/stakeholders/supporters
- Improve capital budget
- Public feeling safer
- Dumpsters cleaned, increased patrols (health and safety and increased visitation)
- Nice parks = nice clientele
- Shared ownership (paying public understand value)

VIII. Recommendation #8

A. Question 1 - What value does this recommendation have to you as a lake manager?

- Not applicable to some areas

- No value
- Origin of funds; positive if extra funding but negative if taken from current agency budget
- If take away from federal agency budget = no net value
- Positive recommendation if public better served
- Enhancements/leverage
- Both federal and non-federal partners

B. Question 2 - What value does this recommendation have to the public you serve?

- Updated facilities (upgrade/rehabilitation)
- Increase opportunity with currently closed facilities
- Provide some communities new opportunity - match dollars

IV. Recommendation 9

A. Question 1 - What value does this recommendation have to you as a lake manager?

- Little interest from state
- Determine if fee constraint can be eliminated
- States willing to do it by themselves
- More flexible project ID and development
- More \$ for viable projects
- Facility partnerships
- Little impact
- More project options on the table

B. Question 2 - What value does this recommendation have to the public you serve?

- No effect
- Economic impact (+) on local areas
- Better access to facilities, management of resources
- good for low population states
- More projects to benefit public
- Limited understanding of implication
- Wallop-Breaux legislation

C. Question 3 - How will this recommendation affect you?

- Expands likelihood that projects will be funded
- Funding for O&M
- May impact funding at project (-)

X. Recommendation 10

A. Question 1 - What value does this recommendation have to you as a lake manager?

- N/A
- Disperse use

- Funds could help tribes (practice issues)
- Help make Cherokee nation partners (outside interior)

B. Question 2 - What value does this recommendation have to the public you serve?

- May address crowding issue
- \$ for downstream activities might benefit tribes (R #12)
- New marinas - reduce pressure on existing
- Increase opportunity for public

C. Question 3 - How will this recommendation affect you?

- Don't manage tribal lands
- Very site specific

XI. Recommendation 11

A. Question 1 - What value does this recommendation have to you as a lake manager?

- Partner with industry to understand trends and demands
- Provides continuing feedback on changing needs
- Collection would increase workload, staff time, \$
- May help get \$
- Value from regional perspective
- More flexibility on surveys
- Value to roll anecdotal evidence (OMB)
- (Already happening) Helps ID priorities
- Would be interesting to see national perspective - how it fits in
- Use existing assessments
- Standardizing data would be a challenge
- Provide right facilities well

B. Question 2 - What value does this recommendation have to the public you serve?

- Public gets more information
- Increase customer satisfaction
- Get structured input for public
- Implies feeling of ownership with users and industry
- Delivery is expected
- Public gets education on barriers

C. Question 3 - How will this recommendation affect you?

- Less \$ available because of more work
- Little impact - already doing it - info exists
- Penalize managers who have satisfied customers
- "Remarks" column is valuable
- Often asked to do what legally can't
- Survey - personal rebuilding - gratifying, motivational

- Existing surveys, working - "let's don't change"

XII. Recommendation 12

A. Question 1 - What value does this recommendation have to you as a lake manager?

- Consider these issues at this time - leave it alone
- Important to consider
- This is a local issue - not national
- Present operating policy
- Public safety

B. Question 2 - What value does this recommendation have to the public you serve?

- Increases usability and operations for recreation
- Expect us to be good stewards?
- Local economic stimulus
- Improve public confidence by looking at both sides of dam
- Fairly narrow beneficiaries

XIII. Recommendation 13

A. Question 1 - What value does this recommendation have to you as a lake manager?

- May provide some minimum expectations
- Accountability with great potential for non-compliance
- Probably too general to be useful for management
- Should not be user-days
- Managing by process - doubtful effectiveness from national lakes
- Little value - "common, consistent"
- Force all to mediocrity
- Redistribution of resources
- Don't need the consistency
- If something "meaningful" might point toward efficiencies
- FS process in place - NPS don't want to cause confusion double work
- Not practiced in some cases/agencies
- Help defend management practices but problems getting measures

B. Question 2 - What value does this recommendation have to the public you serve?

- Minimal value
- May take away initiative of managers
- Provides degree of accountability to public
- Would cause frustration to public because no \$ to meet standards

XIV. Recommendation 14

A. Question 1 - What value does this recommendation have to you as a lake manager?

- Public becomes part of buy-in ownership
- Needs to be publicized from a local standpoint
- Great insights from learning from others
- Private sector exchange would be important - lead to efficiency
- Tap into recently retired resources
- Provide short term experience expertise (? Giving)
- Funding would be an issue
- Annual meetings would be useful
- Ops at National Conferences - special sessions for Feds
- Fit nicely in ecosystem management approach
- Keep doing it - how far down the chain?

B. Question 2 - What value does this recommendation have to the public you serve?

- Provides range of ideas/net benefit public
- Better trained public employees
- Career advancement opportunities
- Enhances recreation experience of using public
- Will be operating with BMP
- Decrease local public frustration by AG minimizing/eliminating conflicting rules, etc.

XV. Recommendation 15

A. Question 1 - What value does this recommendation have to you as a lake manager?

- Become more aware of program
- Needs to be publicized more in agencies
- New \$
- It is broader program
- Reinforces current action plans
- Gives opportunity to provide handicap access
- Reword - not "endorse" but publicize
- Allows expanse of usage (bank fishing) without boats
- Help public image
- Provide opportunity for segment of public not provided for before
- Excellent opportunity for partnering
- Good \$ source for habitat work to improve fishing success

B. Question 2 - What value does this recommendation have to the public you serve?

- Opportunities
- Improve basic fishery resource - satisfy environment and recreation interests
- Water quality
- Better connection to public - see use of fees

XVI. Recommendation 16

A. Question 1 - What value does this recommendation have to you as a lake manager?
(possibly combine with #14)

- Might provide opportunity for \$ of extensive projects
- Objectives must "focus" be carefully constructed - complementary
- Priced with caution - can blow up
- FACA implications
- Heightened awareness of public lands and water
- Good source of \$ and advocacy
- Interact with public, groups, team building
- Political repercussions
- Great tool for informing public-partnering - stretch \$ "in kind"
- Cater to interest groups
- Counter to sound recreation and environment practice

B. Question 2 - What value does this recommendation have to the public you serve?

- Improve recreation opportunities
- Educates public
- Public will learn about their "clout" - raise political awareness
- Provides opportunity for a group to get something that they want exactly

NRLSC Incoming Comment Matrix

Date Received	Author	Organization	Stakeholder Category	Recommendation	Points/concerns/solutions
12/18/98	Shaefer/Quint	AS/WS	Federal Government	Fee Demo	Add wording to make fee demo permanent
12/18/98	Shaefer/Quint	AS/WS	Federal Government	Cost Share	Add wording to investigate changes to the COE policy on closing parks turned back
12/18/98	Shaefer/Quint	AS/WS	Federal Government	Backlog	Add information on how much can be taken care of by retaining fees. Ten year target, yet it talks of 5 year plans. Reconcile the difference.
12/18/98	Shaefer/Quint	AS/WS	Federal Government	Commercial Recreation	Budgets already in place for FY 2000. Use 2001 as target.
12/23/98	Nancy Jemison	BIA	Federal Government	Tribes	Fully supportive. Extremely important to BIA.
12/17/98	Richard W. Davies	Arkansas State Parks & Tourism	State and Local Government	Backlog	Why a 5-year plan for a 10-year program?
12/17/98	Richard W. Davies	Arkansas State Parks & Tourism	State and Local Government	Clean Lakes	Explanation is confusing.
12/17/98	Richard W. Davies	Arkansas State Parks & Tourism	State and Local Government	Council	Need to include budget people and Congressional staffers to the Council -- those who control the money.
12/28/98	W.F. Cronk	Dreyer's	Special Interest	Optimize	Focus on entire watershed.
12/28/98	W.F. Cronk	Dreyer's	Special Interest	Clean Lakes	Emphasize more the public's need for clean, attractive and safe facilities.
12/17/98	Kate Jackson	TVA	Federal Government	General	General support of recommendations.
12/23/98	Wayne Poppe	TVA	Federal Government	General	General support of recommendations.
12/28/98	Darrell Lewis	COE	Federal Government	Cost share	Remove the P.L. 89-72 requirement for cost share partner for new rec. development.

Date Received	Author	Organization	Stakeholder Category	Recommendation	Points/concerns/solutions
12/18/98	James Hess & Steve Richardson	BOR	Federal Government	General	Shorten Report. Shorten Recommendations. Combine Recommendations.
12/18/98	D-5300 Program Analysis Ofc.	BOR (Denver)	Federal Government	General	Unclear who recommendations are written to. Some appear to be for Congress, some to agencies.
12/18/98	D-5300 Program Analysis Ofc.	BOR (Denver)	Federal Government	Backlog	Underlying problem missed. It would be implemented right now if it could.
12/22/98	Ken Karkula	FS	Federal Government	General	General support of recommendations.
1/14/99	Dee Beasley	Kentucky Lake Vacationland	Recreation	Optimize	Water elevation increases improve tourist business. Emphasizing the negative effect of low water elevation on tourist business.
1/6/99	Ken Poynter	Native American Fish & Wildlife Society	Native Americans	Tribes	Strong support of earmarking a percentage of Wallop/Breaux admin. funds for tribal recreation lake development projects.
1/9/99	William C. Ashby		Public	Optimize	Strongly recommends adding recognition of recreational sailing to the report.
1/11/99	Derrick Crandall	The Recreation Roundtable	Recreation	Lab	Fully endorses enactment of legislation creating Lakes Demo. Program for 10 years.
1/11/99	Derrick Crandall	The Recreation Roundtable	Recreation	Fee Demo	Supports this recommendation for COE and BOR.
1/11/99	Robert S. Lynch	CREDA	Power Users	Fee Demo	More research is necessary before recommending a legislative proposal to expand this to include BOR.
1/11/99	Robert S. Lynch	CREDA	Power Users	Council	Do not focus interagency dialogue solely on federally-managed lakes. Dialogue should focus on dam operation, not just the lake.
1/11/99	Robert S. Lynch	CREDA	Power Users	Measures	Performance measures must be synergistic in order to be realistic.

Date Received	Author	Organization	Stakeholder Category	Recommendation	Points/concerns/solutions
1/11/99		NMMA	Manufacturers and Retailers	Tribes	Firmly against using Wallop-Breaux funds to pay for tribal recreation lake development projects. If this recommendation is not removed, NMMA will be forced to ask members of Congress to oppose the entire report.
1/11/99	Steve Banker		Public	Fee Demo	Very supportive of this recommendation.
1/12/99	Jim Thaxton	PPA	Recreation	Optimize	Supports equal consideration of water uses. Downstream recreation of importance to them. Suggest agency mission statements be revisited to include recreation as a high priority.
1/12/99	Jim Davies		Public	Optimize	Supports the report. Interest lies in safer recreational water skiing.
1/13/99	Ed Obermeier		Public	Optimize	Supports the report. Interest lies in safer recreational water skiing.
1/24/99	David Brown	America Outdoors	Recreation	Optimize	Add downstream recreation to recommendation.
1/24/99	David Brown	America Outdoors	Recreation	Clean Lakes	Supports recommendation. Water quality should be given stronger consideration and specific attention.
1/25/99	David Kuhn	Whitewater Rafting	Recreation	Optimize	Include downstream recreation in your recommendation.
1/25/99	Doug Fogal	Pocono Whitewater Adventures	Recreation	NRFCP	Supports and appreciates recommendation.
1/14/99	Bob Miles	IAFWA	State and Local Governments	Tribes	Will not support recommendation.
1/14/99	Bob Miles	IAFWA	State and Local Governments	Cost share	Include complete analysis of costs involved when submitting this recommendation to Congress. Include funding if Fed. Gov't no longer paying for.
1/19/99	Jerry Conley	Missouri Dept. of Conservation	State or Local Government	Tribes	Strongly opposed Wallop-Breaux.
1/19/99	Jerry Conley	Missouri Dept. of Conservation	State or Local Government	Council	Strongly supports but include an advisory body of constituents, partners, involved national organizations and state agencies, serving on the council or regularly consulted by the council.

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1/21/99	Allen Farris	Iowa Dept. of Natural Resources	State or Local Government	Clean Lakes	Supportive of the recommendation.
1/21/99	Allen Farris	Iowa Dept. of Natural Resources	State or Local Government	Tribes	Opposed to this recommendation.
1/22/99	Bruce Shupp	BASS, Inc.	Recreation	Measures	Need some comparisons to competing uses of Federal lakes.
1/22/99	Bruce Shupp	BASS, Inc.	Recreation	General	Need to include some lists or tables of waters included in study or use some descriptive paragraphs with named examples. Change the "implementation" segment following each recommendation into "objectives" and show time frames and responsibility. List specific draft executive orders and/or legislation needed to achieve objectives. Include "Problem Summary" and "Federal Waters Description" sections up front in the text. One of the problems that should be listed is the lower priority of rec. and resource mgmt. within agencies.
1/22/99	Bruce Shupp	BASS, Inc.	Recreation	Tribes	This recommendation could flare into a serious negative issue among state agencies, the IAFWA and some user groups. Could diminish support for entire report.
1/22/99	Bruce Shupp	BASS, Inc.	Recreation	Cost share	Recommendation sounds too much like we are telling the agencies how to spread their own responsibilities rather than describing how communities should jointly find answers to serious operational and fiscal issues.
1/22/99	Kenneth Prowley	Whitewater Challengers, Inc.	Recreation	Optimize	Include downstream recreational boating in recommendations.
1/25/99	John Baughman	Wyoming Game & Fish Department	State or Local Governments	Tribes	Do not decrease the 6% or reduce the amounts states receive from the Aquatic Resources Trust Fund. Support condition that tribal lakes receiving funds are open to the public.
1/25/99	John Baughman	Wyoming Game & Fish Department	State or Local Governments	Assess	Do not support as it may shift much of the burden to the states for federal impact responsibilities. Discourage research team, may add to bureaucracy.
1/25/99	Thomas Klema	Colorado River Outfitters Assn.	Recreation	Optimize	Include downstream boating in recommendations.

Date Received	Author	Organization	Stakeholder Category	Recommendation	Points/concerns/solutions
1/26/99	David Smith	Water Resorts, Inc.	Recreation	Comm. rec	Concessionaire contracts should be allowed to last as long as the facility that was built as long as they are providing quality services to the public. Incentive to provide quality more likely.
1/26/99	Greg Duffy	Oklahoma Dept. of Wildlife Conserv.	State or Local Governments	Tribes	Opposed to recommendation.
1/26/99	Greg Duffy	Oklahoma Dept. of Wildlife Conserv.	State or Local Governments	General	Include recommendations for state fish & wildlife agencies to participate in the development of mgmt. programs on F&W resources and existing wildlife programs.
1/26/99	Robert Faflik	Marina Operators	Recreation	Lab	Supportive. Pair up designated lakes with local and state support in much the same way as the American Heritage River Initiative. This ensures "buy-in" necessary to be successful. Legislation should provide an open forum for partnering, cost-sharing, revenue-sharing and concession agreements. Retain fees at the lake w/o reducing appropriations.
1/26/99	Robert Faflik	Marina Operators	Recreation	Council	Should create to assist in managing demo lakes. Should also be charged with advising Congress and the Administration of success of Lakes Demo Program.
1/26/99	Michael Scuilla	BOAT/U.S.	Recreation	General	Supports report.
1/26/99	Congressman Paul Kanjorski		Federal Government	Optimize	Include downstream recreational activities such as rafting, canoeing and kayaking. Provides low-cost, high-impact economic benefits to the communities it serves.
1/27/99	David Waller	Georgia Dept. of Natural Resources	State or Local Governments	General	Concerned about more people at already crowded lakes which may increase user conflicts.
1/27/99	David Waller	Georgia Dept. of Natural Resources	State or Local Governments	Council	Don't create additional organizations. Maintenance funds are inadequate. Efforts should not focus on additional administration but should go to projects.
1/27/99	David Waller	Georgia Dept. of Natural Resources	State or Local Governments	Tribes	Strongly object to recommendation. Should come from State Wallop/Breaux apportionment, not out of administrative funds.
1/27/99	David Waller	Georgia Dept. of Natural Resources	State or Local Governments	NRFCP	Include state's fish and wildlife mgmt. responsibility here. Encourage active involvement in develop. of rec. fisheries conservation plans at federal lakes.

Date Received	Author	Organization	Stakeholder Category	Recommendation	Points/concerns/solutions
1/27/99	Daniel Witter	Missouri Dept. of Conservation	State or Local Governments	Optimize	Include recreation as a project purpose. Also, attitudes, priorities, policies and where necessary, law needs to be changed to increase recreation at federal lakes.
1/29/99	James Williams	FWS	Federal Government	General	Too many recommendations! Nobody on the Hill is going to plow thru this many. Stick with 3 or 4 and tie together others.
1/29/99	James Williams	FWS	Federal Government	Exchanges	Supportive. Highlight and communicate successes and accomplishments at the project level and efforts may be emulated. Act as advocates both up and down the chain of command and to Congress. Lake Managers are usually not the problem.
1/28/99 & 2/12/99	John Kennedy	Arizona Game & Fish Dept.	State or Local Governments	General	Basic support of report. Supports the International Assoc. of F&W Agencies letter dated January 14, 1999. State's F&W management authority at Federal projects should be addressed in the report. Existing authorities should not be diminished in any way by the NRLSC recommendations.
1/28/99 & 2/12/99	John Kennedy	Arizona Game & Fish Dept.	State or Local Governments	Fee Demo	Although revision of the Fee Demo Program may be appropriate for some Fed. lakes projects, the report should address this recommendation and potential conflicts at facilities where management and infrastructure are already handled by State agencies under license and/or lease agreements.
1/28/99 & 2/12/99	John Kennedy	Arizona Game & Fish Dept.	State or Local Governments	Tribes	The impacts of implementing to State and local governments should be evaluated.
2/10/99	Walter Hubbard	Mississippi Dept. of Wildlife, Fisheries and Parks	State or Local Governments	General	Little mention of states' fish & wildlife authority at federal lakes.
2/10/99	Walter Hubbard	Mississippi Dept. of Wildlife, Fisheries and Parks	State or Local Governments	Tribes	Not in support of using Wallop/Breaux administrative funds for tribal initiatives. Recognizes the importance, but believes funds needed to support state programs unless tribes lakes made public--then state funds can be shared.
2/10/99	Walter Hubbard	Mississippi Dept. of Wildlife, Fisheries and Parks	State or Local Governments	Cost share	Emphasize partnerships, creative funding and user-pay concepts whenever possible throughout report.

Date Received	Author	Organization	Stakeholder Category	Recommendation	Points/concerns/solutions
2/10/99	Lisa Conley	NALMS	Environmentalists	Clean Lakes	Support but separate funding should be used. If Non-Point Program money used, program may face same problems NALMS did.
2/1/99	Peter White	Rancho Monticello Resort, Lake Berryessa, CA	Recreation	General	Supports our work. Interested in participating, particularly in the labs.
2/8/99	Paul Curtis	SOBA	State or Local Government	Tribes	Strongly opposed to recommendation. It may create a need to amend TEA-21 prior to its expiration in 2003 so they strongly oppose the recommendation.
2/2/99	Steve Wilson	Arkansas Game & Fish Commission	State or Local Government	Fee Demo	Fees collected must not affect annual budgets of agencies. To do so would alleviate any benefits of the program.
2/2/99	Steve Wilson	Arkansas Game & Fish Commission	State or Local Government	Tribes	Evaluate further this recommendation.
2/2/99	Steve Wilson	Arkansas Game & Fish Commission	State or Local Government	General	Strongly support Recommendation 16.
2/12/99	C. Pinckney Roberts	Central Electric Power Cooperative, Inc.	Power Users	Optimize	Would like a statement added to the report that if power users are affected by recreation being given top priority, than recreation will have to pay the difference in the higher cost to the power users.
2/2/99	John Rogers	FWS	Federal Government	Backlog	Revise recommendation as "a percentage reduction from the baseline of backlog after a period of time."
2/2/99	John Rogers	FWS	Federal Government	Tribes	Does not support.
2/2/99	John Rogers	FWS	Federal Government	Clean Lakes	Supports and hopes other agencies join efforts.
2/2/99	John Rogers	FWS	Federal Government	Council	Supports points 2-8 but not point 1 of this recommendation. Educate public instead about why these lands and waters were set aside.
2/2/99	John Rogers	FWS	Federal Government	Comm. rec.	Add phrase " to the greatest extent possible." All agency missions differ.
2/2/99	John Rogers	FWS	Federal Government	Lab	The FWS does not intend to take on the mitigation responsibilities of other federal agencies.

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2/2/99	John Rogers	FWS	Federal Government	Measures	Consider the differing missions of agencies and performance measures need to account for qualitative differences in recreation experiences not just a head count.
2/2/99	John Rogers	FWS	Federal Government	NRFCP	Supportive. Suggests we also look at the goals of the National Recreational Fisheries Coordination Council and use its direction to implement the recommendations.
2/17/99	John Titre	COE	Federal Government	Optimize	Suggest inclusion of the significant increase in boating and personal watercraft sales.
2/17/99	John Titre	COE	Federal Government	Assess	While carrying capacity was given thorough treatment, specific recommendations to conduct such studies on lakes were omitted.
2/17/99	John Titre	COE	Federal Government	Measures	Addressing deterioration of quality from a customer satisfaction framework alone will not satisfy the need to balance competing desires and provide quality opportunities for public while sustaining healthy water resources.
2/17/99	Derrick Crandall	American Recreation Coalition	Recreation	Council	Program should start immediately under the Nat'l Partnership for Reinventing Gov't. Program should include a demo phase lasting as long as 10 years.
2/17/99	Derrick Crandall	American Recreation Coalition	Recreation	Backlog	Use TEA-21 tools to fund improvements for access. The Council should explore opportunities and unmet needs.
2/17/99	Derrick Crandall	American Recreation Coalition	Recreation	Tribes	Wallop-Breaux should be modified to permit use of federal funds to match available funds.
2/17/99	Derrick Crandall	American Recreation Coalition	Recreation	Optimize	Secretaries of Interior and Agriculture must address lake level/water release mgmt. including the impact on downstream rec. and give recreation consideration in the allocation of water. Lake Managers should apply modern forecasting and remote sensing technologies to improve lake level mgmt. Appropriate more funding for these new technologies at COE and BOR.

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2/11/99 & 3/1/99	James Hess & Commissioner Martinez	BOR - Washington	Federal Government	General	Report too long, too many recommendations with too much detail and the report does not leave the reader with a distinct impression of the "big picture." Limit to 2 to 4 and broaden. Strengthen the narrative on page 2 under "Complexity of Law and Management" to explain how many agencies operate at Federal lakes, how many missions they are operating under, how many legal authorities they have to deal with and how many authorizing and appropriations committees play a role in those agencies missions.
2/11/99 & 3/1/99	James Hess & Commissioner Martinez	BOR- Washington	Federal Government	Optimize	Make the point more clearly that recreation has evolved over time as an important benefit to the public but that in most cases was never the primary purpose. This will help the policy maker to understand the economic, social and environmental importance that recreation has taken on but which was not anticipated when the reservoirs were constructed.
2/11/99 & 3/1/99	James Hess & Commissioner Martinez	BOR - Washington	Federal Government	Council	Need to have a clearer idea of the goals and objectives of the demo program. Also need to address funding and authorities. Funding estimate to support Council needs to be included as well.
2/11/99 & 3/1/99	James Hess & Commissioner Martinez	BOR - Washington	Federal Government	Backlog	Commends Commission for including this recommendation as it was the number one concern of the lake managers. The phrase "with additional, appropriated funds" is critical to the accomplishment of this recommendation. We believe the schedule established is unrealistic though. It will take much more time to properly plan, design, schedule, obtain cost sharing and perform needed modifications.
2/11/99 & 3/1/99	James Hess & Commissioner Martinez	BOR - Washington	Federal Government	Cost share	This recommendation was commented on most by regional and area offices. Reclamation policy already allows cost-sharing with non-federal partners under P.L. 89-72. We agree though that P.L. 89-72 could be modified to allow for more flexibility.
2/16/99	Angelo Incerpi	Vermont Dept. of Fish and Wildlife	State of Local Governments	General	In both the Guiding Principles and Background, there is a noticeable lack of acknowledgment of the state's authority for managing fish and wildlife populations at federal lake projects. Disappointed that the report focus is on more use of state funds and not focusing on getting more federally-appropriated funds at their projects if inadequate.

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2/16/99	Angelo Incerpi	Vermont Dept. of Fish and Wildlife	State of Local Governments	Tribes	Opposed to this recommendation.
2/16/99	Angelo Incerpi	Vermont Dept. of Fish and Wildlife	State of Local Governments	Assess	Opposed to the way this recommendation is written encouraging states to use Federal Aid in Sport Fish and Wildlife Restoration Act funds in a manner where they would potentially be matched by Federal lake managers. This would violate the requirement that Federal Aid funds can only be matched with state or private funds and not with other Federal funds. Vermont is currently utilizing all Federal Aid funds available. No surplus funds exist for this purpose.
2/16/99	Forrest Reeves	Dept. of Energy Southwestern Power Admin.	Federal Government	General	Page 4, last sentence, rewrite as: "Recreation is the primary purpose at 23 percent of the 1,782 Federal lakes included in this study." Otherwise, without careful examination of Table 1, this sentence is very misleading. On Table 1, it would help to know the number of lakes in each primary purpose category that exceed 1,000 acres in surface area. Page 5, 2nd paragraph, add something about repayment to the COE and BOR. (See letter for clarification). Opposed to Congressional appropriations increase to pay for recreational opportunities if they are such a marketable commodity and provide economic benefits. They should bear the costs.
2/16/99	Forrest Reeves	Dept. of Energy Southwestern Power Admin.	Federal Government	Optimize	Hydropower should be added in the first sentence. Don't state hydropower as a by-product or producing secondary benefits in the last sentence.
2/4/99	Brent Manning	Illinois Department of Natural Resources	State or Local Governments	Cost-share	Don't believe tat federal funding will allow such cost-sharing. This certainly won't take of the backlog.
2/4/99	Brent Manning	Illinois Department of Natural Resources	State or Local Governments	Council	Some non-Federal partner representation is needed in the Council as they have a large stake in these lakes.
2/4/99	Brent Manning	Illinois Department of Natural Resources	State or Local Governments	Assess	Support this recommendation, but a common vehicle is needed for reservoir data analysis, synthesis, and dissemination.

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2/11/99	Richard Davies	Arkansas Parks & Tourism	State or Local Governments	General	Transmittal letter enclosing new Recommendation on Marketing.
2/9/99	Richard Davies	Arkansas Parks & Tourism	State or Local Governments	General	The principle of "Optimize Water Use" needs to make the point that management of these lakes is involved with boating, floating, fishing, flatwater, downstream, watershed and water quality protection as well as any number of other issues that are interconnected just as the principle on "Protect the Environment" does. Suggest adding at the end of this principle "It is important to recognize that water use involves not just the lake, but the accompanying watershed, and downstream uses as well." Background: Mention that state wildlife and fisheries departments manage the fisheries in most, if not all, federal lakes. Significant partnership. Corps of Engineers section: Mention that Congress has directed the COE to study ways to enhance recreation and that they have a task force working on it. Other agencies have similar comments in their sections. Include throughout the recommendations language on the second guiding principle "Encourage the Involvement of Neighboring Communities." It's important and doesn't say so in the recommendations.
2/9/99	Richard Davies	Arkansas Parks & Tourism	State or Local Governments	Council	First sentence in the justification mentions "without significant new Federal funding..." Suggest not putting that on the front end. Instead use something like "to facilitate continuing coordination between the agencies in order to implement the recommendations of the Commission."
2/9/99	Richard Davies	Arkansas Parks & Tourism	State or Local Governments	Comm. rec.	Under Implementation: Suggest agencies try to develop a single "rulebook" or flyer to be distributed widely to reduce current confusion.
2/9/99	Richard Davies	Arkansas Parks & Tourism	State or Local Governments	Cost-share	Under Implementation: Part of the recommendation talks about amending PL 89-72. Implementation section should acknowledge this.
2/9/99	Richard Davies	Arkansas Parks & Tourism	State or Local Governments	Assess	Needs a total rewrite if this is the recommendation that deals with the marketing issue. No mention of marketing anywhere!
2/16/99	Aubrey King	Albertine Enterprises, Inc.	Tourism	General	Strongly endorses the second Guiding Principle. Also, proposes a new recommendation calling for stakeholder involvement and input in Lake Managers annual plans. They are heavily impacted as well as neighboring communities.

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2/16/99	Aubrey King	Albertine Enterprises, Inc.	Tourism	Council	Suggest modification of phrase "to include state and local government, nonprofit and private sector membership" by adding "especially representatives of communities near Federal lakes." Also strongly urge that the Demo Program emphasize "local community involvement" as well as "public involvement."
2/16/99	Aubrey King	Albertine Enterprises, Inc.	Tourism	Assess	Stress the importance of local communities in conducting assessments of customer needs, infrastructure needs, and natural resource needs.
2/1/99	Allen Burden	Federal Highway Administration	Federal Government	Backlog	Briefly mentions public access. A viable transportation infrastructure is critical for other recommendations to succeed. Money may be available under TEA-21.
2/17/99	Robin Pollen	Western States Tourism Policy Council	State or Local Government	General	General support of the report, but State Tourism Offices should be mentioned in the guiding principles as well as Recommendations, 1, 5, 11, 12, and 13 as they play a significant role.
2/16/99	David Gorin	National Association of RV Parks & Campgrounds	Recreation	Comm. rec.	Use a more realistic and comprehensive model for the development of comm. rec. facilities and services at Federal lakes. Rec. 5 doesn't recognize the importance of private comm. operations already functioning on private lands around the lake.
2/16/99	David Gorin	National Association of RV Parks & Campgrounds	Recreation	Assess	Where referencing "customer needs, infrastructure and facility needs" we urge that comprehensive market studies be conducted that includes facilities and services provided by existing businesses near Federal lakes as well.
2/16/99	David Gorin	National Association of RV Parks & Campgrounds	Recreation	Fee Demo	We applaud managerial creativity and innovativeness, just not at the expense of dominating the markets.
2/16/99	David Gorin	National Association of RV Parks & Campgrounds	Recreation	General	Federal recreation agencies should prepare annual plans, including projected budgets for each lake they manage. These should be made available at public meetings where local community leaders and lake managers could consider all input and involvement by neighboring communities.
2/17/99	Barbara DelGrosso	Southwestern Power Resources Association	Power Users	Optimize	Concerned that the power customer will suffer the additional cost of many uses of the lakes which will take away from hydropower.

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2/17/99	Barry Tindall	NRPA	Recreation	General	Strengthen the Preamble. Believes it is a very important part of the report. The report should include the importance of recreation to the health of communities, individuals and local economies. The preamble should also reference the value of partnerships.
2/17/99	Barry Tindall	NRPA	Recreation	Backlog	The report does not address one of the most important reasons why agency budgets must be adequate and predictable: reliable Federal funding are key attractions for partnerships.
2/17/99	Barry Tindall	NRPA	Recreation	Clean Lakes	Need to address how to prevent environmental degradation in this recommendation.
2/17/99	Barry Tindall	NRPA	Recreation	Council	Should include all stakeholders.
2/16/99	Peter White	Lake Berryessa Resort Owners Assn.	Recreation	General	Supports recommendations. Thanks for mentioning Lake Berryessa in your report.
2/16/99	Peter White	Lake Berryessa Resort Owners Assn.	Recreation	Lab	Very interested in hearing details and possibly volunteering for participation in the program. Want a chance to work with us.
2/12/99		BLM	Federal Government	General	Supports the report, but concerns about the Sec. 314 / 319 issue.
2/17/99	Michael Overend	COE	Federal Government	General	The 1st, 2nd and 4th goals but does little to affirm or refute the feasibility of or need for developing a Nat'l Rec. Lakes System. Basically feels that the recommendations won't go anywhere within a "multi-agency" framework.
2/17/99	Michael Overend	COE	Federal Government	Backlog	As well as "bear the cost or share the cost", you can also "beat the cost" thru smart design and management practices. Emphasis on use of "sustainable" and "site sensitive" design and management practices could help alleviate much of the backlog prevent creation of additional backlog. Use of a web site on lake recreation as a means to share successes or exchange information would prove very beneficial. A recommendation should be developed to address the need for public education concerning recreation, especially the nation's youth.
2/17/99	K.A. Pindzola		Public	Optimize	Report understates the conflicting agency missions.

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2/17/99	K.A. Pindzola		Public	Council	Exercise caution regarding establishment of a new Council. Make sure it doesn't serve as another layer of bureaucracy.
2/22/99	Charles Hess	COE	Federal Government	Cost-share	Report should recommend that additional funding be provided to assist the agencies in developing new facilities. Particularly important in view of Rec. 8.
2/22/99	Eluid Martinez	BOR	Federal Government	Backlog	Change wording of "Maintenance of aging facilities has But Congress has recently..." If statement referring to Congress. Be clear on who this is referring to.
2/22/99	Eluid Martinez	BOR	Federal Government	Fee Demo	It is not clear that a one percent increase in visitation in 1997 should be stated as significant or as clear evidence of the public understanding and commitment to sites with fees over sites not charging fees. The data is overstated. We also though recommend that BOR be included in the Fee Demo Program and that the program be permanent.
2/22/99	Eluid Martinez	BOR	Federal Government	Cost-share	Seems to contain both a policy and an authority issue. Suggest they be separated into 2 recommendations.
2/22/99	Eluid Martinez	BOR	Federal Government	Tribes	Clarification needs to be made on exactly what percentage of what amount the recommendation is referencing regarding Interior's budget..
2/18/99	Miriam Chapman	Office of the Solicitor, Dept. of the Interior	Federal Government	Council	The National Recreation Lakes Study Commission Charter may have to be amended in order to advise the recommended council.
2/1/99	Congressman Jerry Costello	U.S. House of Representatives	Federal Government	General	Transmits a constituent's letter. Letter from Mr. William Ashby which has already been keyed in as the 13th entry.
2/23/99	Kate Jackson	TVA	Federal Government	Backlog	Should not have been added back into the report as a recommendation.
2/23/99	Kate Jackson	TVA	Federal Government	General	Report doesn't articulate how the Commission explicitly met the objectives in the legislation. Perhaps this should be part of the Exec. Summary or as an appendix. Maybe describe what the Commission did to comply with each item listed in the legislation. Also, the lake managers' meeting resurfaced the debate over recreation as a national priority for federal lakes. Perhaps we need a recommendation on this.

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2/23/99	Kate Jackson	TVA	Federal Government	Lab	Need to reflect staff work on the lake demonstration program proposed and promoted by Jim Lyons at the January 11-12 Commission meeting.
2/11/99	Roslyn Sheer	American Association for Nude Recreation	Recreation	General	In support of the report and recommendations. Specifically hopes that the report will reflect, the importance of offering recreational lake visitors diversity in the level of development found among these lakes and the importance of encouraging a wide variety of recreation activities on these lakes.
2/19/99	Tom Strickland	Brownstein Hyatt Farber & Strickland	Special Interest	Optimize	More emphasis needed on both flat water and downstream recreation. Suggested rewrite included in letter.
2/19/99	Tom Strickland	Brownstein Hyatt Farber & Strickland	Special Interest	Assess	Demonstration projects and assessments needs stronger emphasis in the recommendations. Suggested rewrite included in letter.
2/19/99	Tom Strickland	Brownstein Hyatt Farber & Strickland	Special Interest	General	Recreation needs to be elevated statutorily as a project purpose. Request adding this topic as an agenda item for further discussion at the next Commission meeting.
3/1/99	Dr. Joseph Westphal	Assistant Secretary of the Army for Civil Works	Federal Government	Cost share	Suggest changing the wording to recommend that the Army and Interior establish a program to cost share facilities at COE and Reclamation projects. Such a program would allow COE to request funding for this purpose.
3/1/99	Bob Miles	International Fish and Wildlife Agencies	State or local governments	General	Pleased to see that the management authority of the states is more clearly documented in the Feb. 25th draft. Be sure to take into consideration ongoing recreation programs and the impact on these programs by assessments. Never assume that recreation facilities or programs are inadequate and that additional recreational opportunities are needed at all federal lakes.
3/1/99	Bob Miles	International Fish and Wildlife Agencies	State or local governments	Tribes	Supports dropping this recommendation.
3/1/99	Bob Miles	International Fish and Wildlife Agencies	State or local governments	Backlog	Strongly urge that these funds be derived from federal appropriations.

Date Received	Author	Organization	Stakeholder Category	Recommendation	Points/concerns/solutions
3/1/99	Bob Miles	International Fish and Wildlife Agencies	State or local governments	Fee Demo	Generally support and extending it to cover COE and Reclamation, but concerned that revenues not be applied against agencies annual budgets.
3/1/99	Bob Miles	International Fish and Wildlife Agencies	State or local governments	Matching	This recommendation would make it easier for states to fund boating access and maintenance projects at federal lakes. Recommend pursuing.
3/1/99	Steve Reich		Public	Backlog	Concerned with federal facilities not being repaired if they are only 20 years old.
2/23/99	Clay Simmons		Public	General	Fully supportive.
3/1/99	Arthur Shirley		Public	General	Wants to promote windsurfing and sailing.
2/26/99	Jim Lyons	Under Secretary - Dept. of Agriculture	Federal Government	Access	TEA-21 can assist.
2/26/99	Jim Lyons	Under Secretary - Dept. of Agriculture	Federal Government	Backlog	Agencies must each inventory existing and planned recreation facilities under its control and estimate deferred maintenance and capital project funding backlog. Plans must be developed for eradicating these needs over a ten year period thru: higher appropriated funds, new or higher recreation fees or investments and expenditures by partners, including concessioners.
2/26/99	Jim Lyons	Under Secretary - Dept. of Agriculture	Federal Government	Tribes	The Wallop-Breaux provisions should be modified to permit use of federal funds of the lake-managing agency to match the available funds. Further, the federal match under the program should be increased to 80% to provide encouragement for use of the funds at key federal lakes.
2/26/99	Jim Lyons	Under Secretary - Dept. of Agriculture	Federal Government	Cost share	In order to secure appropriate private investment, each agency must adopt clear policies outlining its policies toward concessioners.

Date Received	Author	Organization	Stakeholder Category	Recommendation	Points/concerns/solutions
3/31/99	Greg Duffy	Director, Dept. of Wildlife Conservation, Oklahoma State	State or local governments	Backlog	Concur with recommendation to reduce current backlog, due to lack of federal commitment of funds or neglect, but do not transfer these problems and responsibilities to the states.
3/31/99	Greg Duffy	Director, Dept. of Wildlife Conservation, Oklahoma State	State or local governments	Matching	Concur with recommendation. States could more easily fund boating access projects on fed. lakes if this provision became more flexible.
3/31/99	Greg Duffy	Director, Dept. of Wildlife Conservation, Oklahoma State	State or local governments	General	Believe input and participation should be sought from affected state fish and wildlife agencies for recommendations 11, 12 and 14 because it's important that fish and wildlife programs be considered and the impacts assessed.
3/26/99	Aubrey King	National Association of RV Parks and Campgrounds	Recreation	Backlog	Urging that backlog assessments include facilities already being provided by private sector businesses near, but not on recreation lake property. Suggest adding the following second sentence to third explanatory paragraph of Recommendation 3, "Such surveys should also consider the extent to which their customers' recreation needs are being met by nearby private businesses not located on Federal lake property."
3/26/99	Aubrey King	National Association of RV Parks and Campgrounds	Recreation	Comm. rec.	Suggest adding the following sentence after "Justification" for Recommendation 5. "Decisions about private sector investment, development and management of public relation facilities on Federal lake property should consider their impact on existing recreation facilities operated by private businesses on nearby private property to avoid having negative economic consequences for those private businesses."
4/21/99	David Brown	America Outdoors	Recreation	General	Guided whitewater rafting is becoming more popular and higher in areas with expanding populations. On page 38 of the report, line 40 and 41, delete the sentence that "river use is "minor" when compared to lake recreation. The sentence will reflect negatively in the report. Change wording of "minimum flows" to "sufficient, reliable flows" instead in same paragraph on page 38.
4/21/99	David Brown	America Outdoors	Recreation	User Fees	Consistent policies should be in place at all lakes.

Date Received	Author	Organization	Stakeholder Category	Recommendation	Points/concerns/solutions
4/21/99	David Brown	America Outdoors	Recreation	Optimize	Urges the Commission to make a strong statement in the final report that recognizes that downstream recreation is a legitimate project purpose of federal dams that should be given consideration in project operations.
4/21/99	David Brown	America Outdoors	Recreation	Clean lakes	Special appreciation for the Commission's recognition of the importance of water quality issues at federal lakes. Attention needs to be given to the pollution occurring at these lakes.
3/26/99	Aubrey King	National Association of RV Parks and Campgrounds (ARVC)	Recreation	Assess	ARVC urges that these assessments include consideration of those recreation facilities already being provided by private sector businesses near, but not on recreation lake property.
3/26/99	Aubrey King	National Association of RV Parks and Campgrounds (ARVC)	Recreation	Council	ARVC suggests that the following sentence be added at the end of the single paragraph that comprises the justification. "Decisions about private sector investment, development and management of public recreation facilities on Federal lake property should consider their impact on existing recreation facilities operated by private businesses on nearby private property to avoid having negative economic consequences for those private businesses."
4/16/99	Leslie James	Colorado River Energy Distributors Association (CREDA)	Power Users	Lab	Suggest that the results of any pre-existing NPR processes be analyzed prior to establishing a duplicate effort. Thought should be given as to how the results of a lab would be implemented. Make sure cost effective.
4/16/99	Leslie James	Colorado River Energy Distributors Association (CREDA)	Power Users	Optimize	Cautions that any change in operations must consider impacts on both funding sources as well as adverse hydropower effects.

Date Received	Author	Organization	Stakeholder Category	Recommendation	Points/concerns/solutions
4/16/99	Leslie James	Colorado River Energy Distributors Association (CREDA)	Power Users	Fee Demo	CREDA supports this recommendation but cautions that further research is necessary before recommending a legislative proposal to expand this program globally since recreation related revenues are dealt with differently in several authorizing statutes.
4/16/99	Leslie James	Colorado River Energy Distributors Association (CREDA)	Power Users	Cost share	CREDA submits that a separate line item in each agency's budget would not, in and of itself, guarantee that the BOR would spend the money that way. This funding mechanism requires further dialogue and certainty.
4/16/99	Leslie James	Colorado River Energy Distributors Association (CREDA)	Power Users	General	Regarding the marketing plan, any increase in communication program spending should be borne by the beneficiaries and such programs should reflect a balanced message, developed through consultation with stakeholders.

Task 1

Define a Federally-Managed Man-Made Lake

Section 1021 of Public Law 104-333, paragraph (a) states: *“The Congress finds that the Federal Government, under the authority of the Reclamation Act and other statutes, has developed man-made lakes and reservoirs that have become a powerful magnet for diverse recreational activities and that such activities contribute to the well-being of families and individuals and the economic viability of local communities. The Congress further finds that in order to further the purposes of the Land and Water Conservation Fund, the President should appoint an advisory commission to review the current and anticipated demand for recreational opportunities at federally-managed man-made lakes and reservoirs through creative partnerships involving Federal, State, and local governments and the private sector and to develop alternatives for enhanced recreational use of such facilities.”*

We found that the Federal land management agencies did not have accurate records on how many Federally-managed man-made lakes they administered. The National Inventory of Dams, maintained by the Federal Emergency Management Agency (FEMA), was the most credible source of data. Developed to support, dam safety, it contains records of more than 75,000 dams. Approximately three percent of those dams are administered by the Federal Government.

Building on the FEMA definition of a dam, the definition of a Federally-managed man-made lake or reservoir would logically be: “any Federally-managed pool of water caused by any Federally constructed artificial barrier, including appurtenant works, which impounds or diverts water, and which has an impounding capacity at maximum water storage elevation of fifty acre-feet or more.” The staff identified 1,782 lakes or reservoirs in this category within the FEMA data base.

An early initial estimate of Federally-managed man-made lakes provided by the agencies unfortunately included a number of natural lakes. The Inventory of Federal Dams developed by the (FEMA) was consulted to identify which lakes and reservoirs were man-made and which ones were Federally constructed. The Federal agencies that manage man-made lakes and reservoirs, or manage recreation facilities on lands adjacent to those lakes and reservoirs, include the Bureau of Indian Affairs, the Bureau of Land Management, the Bureau of Reclamation, the Corps of Engineers, the Fish and Wildlife Service, the Forest Service, the National Park Service, the Tennessee Valley Authority, the Departments of the Army, Navy and Air Force.

During data acquisition on the 1,782 lakes and reservoirs, it was discovered that there are instances where dams have been constructed by non-federal entities or the private sector at which the water is managed by that owner but the land around the lake or reservoir is managed by a Federal land management agency for use by the public.

Because providing detailed information on all 1,782 man-made lakes was a fiscally and physically impossible burden on the agencies and including lakes too small, too remote, or too unlikely to attract, support or maintain recreation development as envisioned in the Commission’s authorization, our detailed data collection focused only on lakes and reservoirs with a 1,000 or more surface acres of water, of which there are 490. Even then, several agencies were unable to provide detailed data because they do not collect the data requested on a regular basis.

The National Inventory of Dams, maintained by the Federal Emergency Management Agency (FEMA), contains records of more than 75,000 dams. Approximately three percent of those dams are administered by the Federal Government.

From the FEMA data base, 1,782 federally-managed, manmade lakes or reservoirs in 47 States were identified nation wide.

The Federal agencies that manage manmade lakes and reservoirs, or manage recreation facilities on lands adjacent to those lakes and reservoirs, include the Bureau of Indian Affairs, the Bureau of Land Management, the Bureau of Reclamation, the Corps of Engineers, the Fish and Wildlife Service, the Forest Service, the National Park Service, the Tennessee Valley Authority, the Departments of the Army, Navy and Air Force.

Agency	Total Number of Federally-Managed, Man-Made Lakes □ 50 Surface Acres
Bureau of Indian Affairs	152
Bureau of Land Management	2
Bureau of Reclamation	288
Corps of Engineers	537
Fish & Wildlife Service	138
Forest Service	268
National Park Service	82
Tennessee Valley Authority	54
United States Army	175
United States Navy	35
United States Air Force	31
Other	20
Total	1,782

Federally-Managed Man-Made Lakes by State

State	No. Lakes	States	No. Lakes	States	No. Lakes	States	No. Lakes
AK	16	IL	31	NC	37	SC	25
AL	25	IN	22	ND	45	SD	51
AR	38	KS	26	NE	31	TN	49
AZ	55	KY	59	NH	9	TX	54
CA	144	LA	18	NJ	18	UT	38
CO	108	MA	8	NM	67	VA	47
CT	7	MD	11	NV	21	VT	5
DE	0	ME	5	NY	21	WA	43
FL	12	MI	16	OH	32	WI	47
GA	40	MN	69	OK	71	WV	26
HI	0	MO	32	OR	70	WY	43
IA	17	MS	19	PA	55		
ID	25	MT	74	RI	0		

Recreation: An Authorized Purpose at All Federal Lakes?

Recreation is an authorized purpose of almost all Federal lakes.

All water resource projects (Federal lakes) authorized by Congress prior to 1965 are assumed to have recreation as a purpose regardless of whether recreation was specifically addressed. Water resource projects formulated after 1965 must specifically authorize recreation for it to be a project purpose.⁵

The Bureau of Reclamation and the Corps of Engineers have been vested with an authority and responsibility to operate their Federal lakes to achieve the optimum public benefits.⁶ No single user “owns” these Federal lakes; the Federal taxpayers paid for them and own them (water districts pay back Bureau of Reclamation dam construction costs but do not gain ownership). The challenge is to realize the expectations of Congress and the public and, where necessary, to balance competing needs and desires. Recreation must be considered among the various purposes of the Federal lakes.

The basis of each authorization varies with the project. Some recreation authorizations are specific to the project, while others are founded on general legislation, namely the 1944 Flood Control Act (P.L. 78-534) and the 1965 Federal Water Project Recreation Act (P.L. 89-72).

Pre-1965. The legislative history of the 1944 Flood Control Act reveals that Congress considered its grant of authority to develop and operate park and recreation facilities as an “additional authorization” beyond those granted in project-specific legislation. The object of both the recreation and hydropower marketing functions in this act was to make the greatest beneficial use of what might otherwise be flood waters.

Post-1965. The Federal Water Project Recreation Act of 1965 provided, for the first time, a cost-sharing process to further promote recreation at reservoir projects. Where these authorizations have in fact been exercised, recreation is clearly an authorized purpose.

Conclusion

All Federal lakes authorized by Congress prior to 1965 are assumed to have recreation as a purpose regardless of whether recreation was specifically addressed. All water resource projects formulated after 1965 must specifically authorize recreation and allocate a portion of the cost of the project to recreation for recreation to be a project purpose. This is important to the National Recreation Lakes Study Commission as it cuts directly to the heart of the discussion as to whether recreation is or is not a Congressionally authorized purpose of many of the Federal lakes.

⁵ U.S. Army Corps of Engineers, Office of Council Opinion from a November 1989 letter from Major General Bunker, South Atlantic Division Commander, Corps of Engineers, to Congressman Tom Bevill.

⁶ Ibid.

Primary Purpose (Congressionally Designated) of the 1,782 Federally-Managed, Man-Made Lakes and Reservoirs

Primary Purpose	No. of Lakes/Reservoirs	Percent of Total
Recreation	417	23.4
Flood Control	383	21.5
Irrigation	321	18.0
Fish & Wildlife	212	11.9
Navigation	162	9.1
Water Supply	113	6.3
Hydroelectric	69	3.9
Multi	24	1.3
Tailings	3	0.2
Debris Control	4	0.2
Other Purpose	74	4.2
Total	1,782	100.0

Source: National Inventory of Dams

Federally-Managed, Man-Made Lakes and Reservoirs

NID_ID	DAM_NAME	OTHER_NAME	CONG_DIS	COUNTY	PRM_PURPOS
Alaska					
AK00085	MOOSE CREEK DAM/CHENA LAKES PROJECT	N/A	AK-01	FAIRBANKS - NORTH STAR BO	FLOOD CONTROL
AK00035	SHIP CREEK DAM				WATER SUPPLY
AK00036	GREGORY LAKE	SIX MILE RESERVOIR	AK-01	ANCHORAGE DIVI	RECREATION
AK00061	ALEUT CREEK DAM			ALEUTIAN ISL.	WATER SUPPLY
AK00106	NORTH LAKE DAM NW SIDE	NORTH LAKE	AK-01	ALEUTIAN ISL.	WATER SUPPLY
AK00108	BONNY ROSE LAKE DAM	BOMMU RESE LAKE	AK-01	ALEUTIAN ISL.	WATER SUPPLY
AK00109	LAKE LEONE DAM	LAKE LEONE	AK-01	ALEUTIAN ISL D	WATER SUPPLY
AK00110	ADAK LOG DAM			ALEUTIAN ISL D	WATER SUPPLY
AK00123	LAKE DEMARIE DAM	LAKE DEMARIE	AK-01	ALEUTIAN ISL.	WATER SUPPLY
AK00044	DOE APA LONG LAKE DAM	SNETTISHAM PROJECT	AK-01	JUNEAU BOROUGH	HYDROELECTRIC
AK00033	DOE APA EKLUTNA DAM			MATANUSKA-SUSITNA BOROUGH	HYDROELECTRIC
AK00053	ITASIGROOK			BARROW DIVISION	WATER SUPPLY
AK00074	CHESTER LAKE		AK-01	KETCHIKAN	WATER SUPPLY
AK00153	KARLUK LAGOON		AK-01	KODIAK DIVISION	WATER SUPPLY
AK00058	LAKE OSPREY DAM	LAKE OSPREY			
AK82401	EXPLORER GLACIER POND DAM	EXPLORER GLACIER POND			FISH & WILDLIFE
Alabama					
AL01428	WILLIAM BACON OLIVER LOCK AND DAM	WILLIAM BACON OLIVER LAKE	AL-07	TUSCALOOSA	NAVIGATION
AL01433	GEORGE W ANDREWS LOCK AND DAM	GEORGE W. ANDREWS LAKE		HOUSTON	NAVIGATION
AL01436	CLAIBORNE LOCK AND DAM	CLAIBORNE LAKE	AL-01	MONROE	NAVIGATION
AL01980	GAINESVILLE LOCK AND DAM	GAINESVILLE LAKE	AL-07	GREENE	NAVIGATION
AL01429	A.I.SELDEN	WARRIOR LAKE	AL-07	HALE	NAVIGATION
AL01979	TOM BEVILL LOCK AND DAM	ALICEVILLE LAKE		PICKENS	NAVIGATION

AL01431	COFFEEVILLE LOCK AND DAM	COFFEEVILLE LAKE	AL-07	CHOCTAW	NAVIGATION
AL01430	DEMOPOLIS LOCK AND DAM	DEMOPOLIS LAKE	AL-07	MARENGO	NAVIGATION
AL01434	ROBERT F. HENRY LOCK AND DAM	R.E. (BOB) WOODRUFF LAKE	AL-07	LOWNDES	NAVIGATION
AL01435	MILLERS FERRY LOCK,DAM & POWERHOUSE	WILLIAM (BILL) DANNELLY	AL-07	WILCOX	NAVIGATION
AL01432	WALTER F GEORGE LOCK,DAM,POWERHOUSE	EUFAULA		HENRY	NAVIGATION
AL01426	HOLT LOCK,DAM AND POWERHOUSE	HOLT LAKE	AL-06	TUSCALOOSA	NAVIGATION
AL01427	JOHN HOLLIS BANKHEAD LOCK DAM & PH	LAKE BANKHEAD	AL-06	TUSCALOOSA	NAVIGATION
AL01981	WILLIAM BACON OLIVER REPLACEMENT	OLIVER	AL-07	TUSCALOOSA	NAVIGATION
AL00915	CONE RESERVOIR		AL-03	CALHOUN	RECREATION
AL00920	YAHOU	YAHOU LAKE	AL-03	CALHOUN	RECREATION
AL01721	REILLY LAKE		AL-03	CALHOUN	RECREATION
AL00665	LAKE THOLOCCO		AL-02	DALE	RECREATION
AL05901	BEAR CREEK	BEAR CREEK RESERVOIR	AL-04	FRANKLIN	FLOOD CONTROL
AL05903	LITTLE BEAR CREEK	LITTLE BEAR CREEK RESER	AL-04	FRANKLIN	FLOOD CONTROL
AL09301	UPPER BEAR CREEK	UPPER BEAR CREEK RESERVOIR	AL-04	MARION	FLOOD CONTROL
AL05902	CEDAR CREEK	CEDAR CREEK RESERVOIR	AL-04	FRANKLIN	FLOOD CONTROL
AL07702	WILSON	WILSON LAKE	AL-05	LAUDERDALE ; COLBERT	NAVIGATION
AL07701	WHEELER	WHEELER LAKE	AL-05	LAUDERDALE ; LAWRENCE	NAVIGATION
AL09501	GUNTERSVILLE	GUNTERSVILLE LAKE	AL-04	MARSHALL	NAVIGATION
Arkansas					
AR01200	GILLHAM	GILLHAM LAKE	AR-04	HOWARD	OTHER
AR01202	DIERKS	DIERKS LAKE	AR-04	SEVIER	OTHER
AR01201	DEQUEEN	DEQUEEN LAKE	AR-04	SEVIER	OTHER
AR00157	BLUE MOUNTAIN		AR-02	YELL	OTHER
AR00158	NIMROD	NIMROD LAKE		YELL	OTHER
AR00168	LOCK AND DAM #3	POOL 3	AR-04	JEFFERSON	FLOOD CONTROL
AR00170	TOAD SUCK FERRY LOCK & DAM	POOL 8	AR-02	FAULKNER	FLOOD CONTROL
AR00172	DAVID D. TERRY LOCK & DAM	POOL 6	AR-02	PULASKI	FLOOD CONTROL

AR00167	EMMETT SANDERS (L&D 4)	POOL 4	AR-04	JEFFERSON	FLOOD CONTROL
AR00166	LOCK & DAM #5	POOL 5	AR-04	JEFFERSON	FLOOD CONTROL
AR00163	JAMES W. TRIMBLE (L&D 13)	POOL 13	AR-03	SEBASTIAN	FLOOD CONTROL
AR00154	NARROWS DAM	LAKE GREESON	AR-04	PIKE	FLOOD CONTROL
AR00164	OZARK LOCK & DAM	OZARK LAKE	AR-03	FRANKLIN	FLOOD CONTROL
AR00169	WILBUR D. MILLS (DAM #2)	POOL 2	AR-01	ARKANSAS	FLOOD CONTROL
AR82201	H. K. THATCHER LOCK & DAM	QUACHITA RIVER	AR-04	UNION	NAVIGATION
AR00151	DEGRAY DAM	DEGRAY LAKE	AR-04	CLARK	FLOOD CONTROL
AR00159	NORFORK	NORFORK LAKE	AR-03	BAXTER	OTHER
AR00156	FELSENTHAL LOCK & DAM	OUACHITA R	AR-04	UNION	NAVIGATION
AR00174	BEAVER	BEAVER LAKE	AR-03	CARROLL	OTHER
AR00536	MILLWOOD DAM	MILLWOOD LAKE	AR-04	LITTLE RIVER	OTHER
AR00173	GREERS FERRY	GREERS FERRY LAKE	AR-01	CLEBURNE	OTHER
AR00162	DARDANELLE LOCK & DAM	DARDANELLE LAKE		YELL	FLOOD CONTROL
AR00150	BLAKELY MOUNTAIN DAM	LAKE OUACHITA	AR-04	GARLAND	HYDROELECTRIC
AR00160	BULL SHOALS	BULL SHOALS LAKE	AR-03	BAXTER	OTHER
AR00161	NORRELL LOCK & DAM	ARKANSAS POST CANAL	AR-01	ARKANSAS	FLOOD CONTROL
AR00165	ARTHUR V. ORMOND	POOL 9	AR-02	CONWAY	FLOOD CONTROL
AR00171	MURRAY LOCK & DAM	POOL 7	AR-02	PULASKI	FLOOD CONTROL
AR00085	CAMP ROBINSON LAKE DAM NO.1	CAMP ROBINSON LAKE NO.1	AR-02	PULASKI	RECREATION
AR00804	ARSENAL LAKE DAM	YELLOW LAKE	AR-04	JEFFERSON	RECREATION
AR00805	TULLEY LAKE DAM	TULLEY LAKE	AR-04	JEFFERSON	RECREATION
AR00932	WILLIES LAKE DAM	WILLIES LAKE		SEBASTIAN	RECREATION
AR00944	ENGINEER LAKE DAM	ENGINEER LAKE	AR-03	SEBASTIAN	RECREATION
AR82301	AREA 7 SECTION 4 DAM	RUNOFF IMPOUNDMENT POND	AR-04	JEFFERSON	TAILINGS
AR00076	THOMAS LAKE DAM	THOMAS LAKE	AR-02	PULASKI	RECREATION
AR10024	WHITE RIVER POND #4		AR-01	ARKANSAS	FISH & WILDLIFE
AR10020	WHITE RIVER POND #1		AR-01	ARKANSAS	FISH & WILDLIFE
AR01323	RICKS ESTATE		AR-04	GARLAND	RECREATION
AR00417	DARBY DAM	DARBY LAKE	AR-03	FRANKLIN	WATER SUPPLY

Arizona

AZ10002	PAINTED ROCK DAM	PAINTED ROCK RESERVOIR	AZ-02	MARICOPA	FLOOD CONTROL
AZ82203	ALAMO DAM	ALAMO LAKE		YUMA	FLOOD CONTROL
AZ10004	WHITLOW RANCH DAM	WHITLOW RANCH RESERVOIR	AZ-06	PINAL	FLOOD CONTROL
AZ10439	PASTURE CANYON	PASTURE CANYON RESERVOIR	AZ-06	COCONINO	IRRIGATION
AZ10306	WHEATFIELDS	WHEATFIELDS LAKE	AZ-06	APACHE	IRRIGATION
AZ10301	GANADO	GANADO LAKE, RESERVOIR	AZ-06	APACHE	IRRIGATION
AZ10446	ELGO	TALKALAI LAKE, SAN CARLOS	AZ-06	GILA, GRAHAM	IRRIGATION
AZ10303	TSAILLE	TSAILLE LAKE, RESERVOIR	AZ-06	APACHE	RECREATION
AZ10438	CANYON DIABLO	CANYON DIABLO RESERVOIR		COCONINO	RECREATION
AZ10304	MANY FARMS	MANY FARMS LAKE	AZ-06	APACHE	IRRIGATION
AZ10435	PICACHO	PICACHO RESERVOIR	AZ-06	PINAL	IRRIGATION
AZ10008	TAT MOMOLIKOT	LAKE SAINT CLAIR	AZ-02	PINAL	FLOOD CONTROL
AZ10305	ROUND ROCK	ROUND ROCK LAKE	AZ-06	APACHE	IRRIGATION
AZ10380	POINT OF PINES				RECREATION
AZ10381	DRY LAKE				RECREATION
AZ10402	CEDAR BASIN		AZ-06	GILA	
AZ10407	TUFA STONE	TUFA STONE LAKE	AZ-06	GILA	IRRIGATION
AZ10418	BOG TANK				RECREATION
AZ10419	DAVIS	HAWLEY LAKE			RECREATION
AZ10423	EARL PARK				RECREATION
AZ10424	HORSESHOE CIENEGA				RECREATION
AZ10425	RESERVATION				RECREATION
AZ10427	CHRISTMAS TREE				RECREATION
AZ10428	A-1				RECREATION
AZ10429	SHUSH BEZAHZE				RECREATION
AZ10430	SHUSH BE TOU				RECREATION
AZ10431	CYCLONE				RECREATION
AZ10432	SUNRISE				RECREATION

AZ10436	COOLIDGE	SAN CARLOS LAKE	AZ-06	PINAL, GILA	IRRIGATION
AZ10437	HEADGATE ROCK	MOOVALYA LAKE		YUMA	IRRIGATION
AZ10447	MENEGERS	MENEGERS LAKE	AZ-02	PIMA	IRRIGATION
AZ82901	BLUE CANYON		AZ-06	APACHE	WATER SUPPLY
AZ82908	TUVE	LAGOON RESERVOIR	AZ-06	COCONINO	IRRIGATION
AZ82909	WAUNKA	WAUNKA DIKE, RESERVOIR	AZ-06	APACHE	FLOOD CONTROL
AZ82928	SEVEN MILE TANK				RECREATION
AZ82929	NEW WADDELL	LAKE PLEASANT		MARICOPA	IRRIGATION
AZ10312	PARKER	LAKE HAVASU, PARKER RES		SAN BERNARDINO, CA; YUMA,	WATER SUPPLY
AZ10309	DAVIS	LAKE MOHAVE, DAVIS RES	AZ-03	MOHAVE, AZ; CLARK, NV	HYDROELECTRIC
AZ10307	GLEN CANYON	LAKE POWELL	AZ-03	COCONINO	HYDROELECTRIC
AZ10316	GRANITE REEF DIVERSION		AZ-06	MARICOPA	IRRIGATION
AZ10313	MORMAN FLAT	CANYON LAKE, MORMAN FLAT	AZ-06	MARICOPA	IRRIGATION
AZ10318	STEWART MOUNTAIN	STEWART MOUNTAIN RES, SAGUARO LA	AZ-06	MARICOPA	IRRIGATION
AZ10311	HORSE MESA	APACHE LAKE, HORSE MESA R	AZ-06	MARICOPA	IRRIGATION
AZ10308	BARTLETT	HORSESHOE	AZ-06	MARICOPA	WATER SUPPLY
AZ10317	THEODORE ROOSEVELT	THEODORE ROOSEVELT LAKE	AZ-06	MARICOPA, GILA	IRRIGATION
AZ10005	MORELOS DAM		AZ-02	YUMA	
AZ00094	STEEL	STEEL DAM	AZ-03	COCONINO	RECREATION
AZ00127	CRESCENT		AZ-06	APACHE	RECREATION
AZ10142	HORSETHIEF			MARICOPA	RECREATION
AZ10143	GRANITE BASIN			MARICOPA	RECREATION
AZ10157	RUCKER CANYON		AZ-05	COCHISE	RECREATION
AZ10159	HULSEY LAKE		AZ-06	APACHE	
AZ82403	WHITEHORSE		AZ-03	COCONINO	RECREATION
AZ82404	SCHOLZ		AZ-03	COCONINO	FISH & WILDLIFE
AZ82410	SYCAMORE		AZ-05	PIMA	WATER SUPPLY

CA10101	BEAR DAM		CA-19	MARIPOSA	FLOOD CONTROL
CA10102	BLACK BUTTE DAM	BLACK BUTTE LAKE	CA-03	TEHAMA	FLOOD CONTROL
CA10103	BURNS DAM		CA-18	MERCED	FLOOD CONTROL
CA10104	FARMINGTON DAM		CA-11	SAN JOAQUIN	FLOOD CONTROL
CA10105	HARRY L. ENGLEBRIGHT DAM	HARRY L. ENGLEBRIGHT LAKE	CA-02	YUBA AND NEVADA	DEBRIS CONTROL
CA10107	MARIPOSA DAM		CA-19	MARIPOSA	FLOOD CONTROL
CA10108	MARTIS CREEK DAM	MARTIS CREEK LAKE	CA-02	NEVADA	FLOOD CONTROL
CA10109	NEW HOGAN DAM	NEW HOGAN LAKE	CA-04	CALAVERAS	FLOOD CONTROL
CA10111	OWENS DAM		CA-19	MARIPOSA	FLOOD CONTROL
CA10113	SUCCESS DAM	SUCCESS LAKE	CA-21	TULARE	FLOOD CONTROL
CA10114	TERMINUS DAM	LAKE KAWEAH	CA-19	TULARE	FLOOD CONTROL
CA10201	COYOTE VALLEY DAM	LAKE MENDOCINO	CA-01	MENDOCINO	FLOOD CONTROL
CA10243	BUCHANAN DAM	H.V.EASTMAN LAKE	CA-19	MADERA	FLOOD CONTROL
CA10244	HIDDEN DAM	HENSLEY LAKE	CA-19	MADERA	FLOOD CONTROL
CA82212	WARM SPRINGS DAM	LAKE SONOMA	CA-01	SONOMA	FLOOD CONTROL
CA82214	HAYSTACK			MERCED	FLOOD CONTROL
CA10004	HAINES CANYON DEBRIS DAM	HAINES CANYON RESERVOIR	CA-27	LOS ANGELES	FLOOD CONTROL
CA10016	BREA DAM	BREA RESERVOIR	CA-39	ORANGE	FLOOD CONTROL
CA10017	CARBON CANYON DAM	CARBON CANYON RESERVOIR	CA-41	ORANGE	FLOOD CONTROL
CA10018	FULLERTON DAM	FULLERTON RESERVOIR	CA-39	ORANGE	FLOOD CONTROL
CA10019	HANSEN DAM	HANSEN RESERVOIR	CA-26	LOS ANGELES	FLOOD CONTROL
CA10020	LOPEZ DAM	LOPEZ RESERVOIR	CA-26	LOS ANGELES	FLOOD CONTROL
CA10022	PRADO DAM	PRADO RESERVOIR	CA-43	RIVERSIDE	FLOOD CONTROL
CA10023	SAN ANTONIO DAM	SAN ANTONIO RESERVOIR		LOS ANGELES	FLOOD CONTROL
CA10024	SANTA FE DAM	SANTA FE RESERVOIR	CA-31	LOS ANGELES	FLOOD CONTROL
CA10025	SEPULVEDA DAM	SEPULVEDA RESERVOIR	CA-24	LOS ANGELES	FLOOD CONTROL
CA10027	WHITTIER NARROWS DAM	WHITTIER NARROWS RESERVOIR	CA-34	LOS ANGELES	FLOOD CONTROL
CA10110	NORTH FORK DAM	LAKE CLEMENTINE	CA-04	PLACER	DEBRIS CONTROL
CA10202	SALINAS DAM	SANTA MARGARITA LAKE	CA-22	SAN LUIS OBISPO	WATER SUPPLY
CA10106	ISABELLA DAM	ISABELLA LAKE	CA-21	KERN	FLOOD CONTROL

CA10112	PINE FLAT DAM	PINE FLAT LAKE	CA-19	FRESNO	FLOOD CONTROL
CA10021	MOJAVE DAM	MOJAVE RESERVOIR	CA-40	SAN BERNARDINO	FLOOD CONTROL
CA10121	LOWER STONEY VALLEY	LOWER STONEY VALLEY RESERVOIR	CA-17	MONTEREY	WATER SUPPLY
CA10125	OAT HILL RESERVOIR		CA-17	MONTEREY	WATER SUPPLY
CA10128	SYCAMORE RESERVOIR		CA-17	MONTEREY	WATER SUPPLY
CA10115	BEALE	BEALE LAKE	CA-02	YUBA	FLOOD CONTROL
CA10116	BLACKWELDER	BLACKWELDER LAKE	CA-02	YUBA	FLOOD CONTROL
CA10117	FRISKY	FRISKY LAKE	CA-02	YUBA	FLOOD CONTROL
CA10118	LOWER BLACKWELDER	LOWER BLACKWELDER LAKE	CA-02	YUBA	FLOOD CONTROL
CA10119	MILLER	MILLER LAKE	CA-02	YUBA	FLOOD CONTROL
CA10120	RECLAMATION DAM EDWARDS AIR BASE		CA-21	KERN	OTHER
CA10129	MATHER DAM	MATHER LAKE	CA-11	SACRAMENTO	RECREATION
CA10130	PULGAS LAKE DAM	PULGAS LAKE	CA-48	SAN DIEGO	RECREATION
CA10131	LAKE ONEILL DAM	LAKE ONEILL	CA-48	SAN DIEGO	WATER SUPPLY
CA10132	PILGRIM CREEK DAM	PILGRIM CREEK LAKE	CA-48	SAN DIEGO	RECREATION
CA10133	CASE SPRINGS DAM	CASE SPRING LAKE	CA-48	SAN DIEGO	RECREATION
CA82302	STATION FISH POND DAM	STATION FISH POND		SAN DIEGO	FLOOD CONTROL
CA10141	CLEAR LAKE	CLEAR LAKE RES	CA-02	MODOC	IRRIGATION
CA10163	LAUER	LAUER LAKE, RESERVOIR	CA-02	MODOC	IRRIGATION
CA10169	MCGINTY	MCGINTY LAKE	CA-02	MODOC	IRRIGATION
CA10136	BRADBURY	CACHUMA RES, LAKE CACHUMA	CA-22	SANTA BARBARA	WATER SUPPLY
CA10138	CARPINTERIA	CARPINTERIA RES	CA-22	SANTA BARBARA	WATER SUPPLY
CA10139	CASITAS	LAKE CASITAS	CA-23	VENTURA	IRRIGATION
CA10143	CONTRA LOMA	CONTRA LOMA RES	CA-10	CONTRA COSTA	HYDROELECTRIC
CA10145	EAST PARK	EAST PARK RES	CA-03	COLUSA	IRRIGATION
CA10148	FOLSOM	FOLSOM LAKE	CA-04	SACRAMENTO	IRRIGATION
CA10154	FRIANT	MILLERTON LAKE	CA-19	FRESNO	IRRIGATION
CA10156	GLEN ANNE	GLEN ANNE RES	CA-22	SANTA BARBARA	IRRIGATION
CA10159	IMPERIAL DIVERSION	IMPERIAL RES	CA-52	IMPERIAL, CA; YUMA, AZ	IRRIGATION
CA10160	KESWICK	KESWICK RES	CA-02	SHASTA	IRRIGATION

CA10164	LAURO	LAURO RES	CA-22	SANTA BARBARA	WATER SUPPLY
CA10168	MARTINEZ	MARTINEZ RES, MOUNTAIN VIEW	CA-07	CONTRA COSTA	WATER SUPPLY
CA10170	MONTICELLO	BERRYESSA LAKE		YOLO	IRRIGATION
CA10174	NIMBUS	LAKE NATOMA	CA-04	SACRAMENTO	HYDROELECTRIC
CA10176	ORTEGA	ORTEGA RES	CA-22	SANTA BARBARA	WATER SUPPLY
CA10180	PUTAH DIVERSION	LAKE SOLANO	CA-01	YOLO, SOLANO	IRRIGATION
CA10181	RED BLUFF DIVERSION	RED BLUFF RES	CA-03	TEHAMA	IRRIGATION
CA10183	B. F. SISK	SAN LUIS	CA-18	MERCED	IRRIGATION
CA10185	SENATOR WASH	SENATOR WASH RES	CA-52	IMPERIAL	HYDROELECTRIC
CA10187	SLY PARK	JENKINSON LAKE	CA-04	EL DORADO	IRRIGATION
CA10194	STONY GORGE	STONY GORGE LAKE	CA-03	GLENN	IRRIGATION
CA10195	TERMINAL	TERMINAL RES	CA-01	SOLANO	IRRIGATION
CA10197	TWITCHELL	TWITCHELL RES	CA-22	SAN LUIS OBISPO	OTHER
CA10204	WHISKEYTOWN	CLAIR A. HILL WHISKEYTOWN	CA-02	SHASTA	HYDROELECTRIC
CA10245	FUNKS	FUNKS RES	CA-03	COLUSA	IRRIGATION
CA10246	NEW MELONES	MELONES LAKE	CA-04	CALAVERAS, TUOLUMNE	IRRIGATION
CA82903	O'NEILL FOREBAY	O'NEILL FOREBAY RES	CA-18	MERCED	HYDROELECTRIC
CA82905	SUGAR PINE	SUGAR PINE RES	CA-04	PLACER	WATER SUPPLY
CA82934	SAN JUSTO	SAN JUSTO RES	CA-17	SAN BENITO	IRRIGATION
CA82938	BUCKHORN				DEBRIS CONTROL
CA10135	BOCA	BOCA RES	CA-02	NEVADA	IRRIGATION
CA10162	LAKE TAHOE		CA-04	PLACER	IRRIGATION
CA10165	LEWISTON	LEWISTON LAKE	CA-02	TRINITY	IRRIGATION
CA10179	PROSSER CREEK	PROSSER CREEK RES	CA-02	NEVADA	FLOOD CONTROL
CA10186	SHASTA	SHASTA LAKE	CA-02	SHASTA	IRRIGATION
CA10192	STAMPEDE	STAMPEDE RES	CA-02	SIERRA	FLOOD CONTROL
CA10196	TRINITY	CLAIR ENGLE LAKE	CA-02	TRINITY	IRRIGATION
CA10144	DORRIS		CA-02	MODOC	IRRIGATION
CA00085	UPPER FRANKLIN			LOS ANGELES	HYDROELECTRIC
CA10261	LOWER TURNEY				

CA82907	A-FRAME POND			TAILINGS
CA82910	LAGOON PARK			
CA82912	LOWER ZUMA CONTROL STRUCTURE			FLOOD CONTROL
CA82913	MARSHALL POND			TAILINGS
CA82916	NIMAN-SCHELL			OTHER
CA82920	ROCKY OAK			RECREATION
CA82948	HWY. 41 EMBANKMENT			TAILINGS
CA10265	UPPER KEYS			
CA10266	MANZANITA LAKE	CA-02	SHASTA	TAILINGS
CA10267	BEAR GULCH		SAN BENITO	FLOOD CONTROL
CA10253	UPPER ESTERO	CA-06	MARIN	OTHER
CA10268	CASCADE	CA-19	MARIPOSA	RECREATION
CA00017	HIGH EMIGRANT	CA-04	TUOLUMNE	RECREATION
CA00464	JANES FLAT	CA-02	MODOC	RECREATION
CA00768	HALL MILL	CA-44	RIVERSIDE	RECREATION
CA00920	BAYLEY		MODOC	WATER SUPPLY
CA10207	EMIGRANT LAKE	CA-04	TUOLUMNE	FISH & WILDLIFE
CA10216	FALLEN LEAF	CA-04	EL DORADO	RECREATION
CA10217	KANGAROO LAKE	CA-02	SISKIYOU	IRRIGATION
CA10220	MIDDLE EMIGRANT	CA-04	TUOLUMNE	RECREATION
CA10221	UPPER BUCK LAKE	CA-04	TUOLUMNE	FISH & WILDLIFE
CA10222	LONG LAKE	CA-04	TUOLUMNE	WATER SUPPLY
CA10224	HERRING CREEK	CA-04	TUOLUMNE	RECREATION
CA10225	BEAR LAKE	CA-04	TUOLUMNE	RECREATION
CA10226	LEIGHTON	CA-04	TUOLUMNE	WATER SUPPLY
CA10228	LOWER SALMON LAKE	CA-02	SIERRA	RECREATION
CA10230	SNAG LAKE	CA-02	SIERRA	RECREATION
CA10231	PACKER	CA-02	SIERRA	RECREATION
CA10232	WEAVER	CA-02	NEVADA	RECREATION
CA10233	BLUE LAKE		MODOC	RECREATION

CA10237	SPAULDING 3		CA-02	MODOC	RECREATION
CA10239	SMITH LAKE		CA-02	PLUMAS	RECREATION
CA10307	HUME LAKE		CA-19	FRESNO	RECREATION
CA10308	TWIN LAKES		CA-04	MONO	RECREATION
CA10310	LOWER ABBOTT LAKE		CA-17	MONTEREY	RECREATION
CA10313	EVERLY		CA-02	MODOC	IRRIGATION
CA10315	FAIRCHILD (RES F)	RESERVOIR F	CA-02	MODOC	RECREATION
CA10316	RESERVOIR M		CA-02	MODOC	IRRIGATION
CA10317	RESERVOIR N		CA-02	MODOC	IRRIGATION
CA10319	SURVEYORS VALLEY		CA-02	MODOC	FLOOD CONTROL
CA10325	RESERVOIR C		CA-02	MODOC	RECREATION
CA10326	BOLES MEADOW		CA-02	MODOC	IRRIGATION
CA10327	CUMMINGS RES NO 2	UPPER CUMMINGS	CA-02	MODOC	IRRIGATION
CA10329	GRASS LAKE			PLUMAS	RECREATION
CA10330	JAMISON LAKE		CA-02	PLUMAS	WATER SUPPLY
CA10331	UPPER SARDINE LAKE		CA-02	SIERRA	RECREATION
CA10337	FOUR MILE VALLEY NO 4		CA-02	MODOC	FLOOD CONTROL
CA10339	EMIGRANT SPRINGS		CA-02	MODOC	RECREATION
CA10340	EAST BOULDER		CA-02	SISKIYOU	RECREATION
CA82474	LOST LAKE			MODOC	RECREATION
CA82504	DEER HILL		CA-02	MODOC	WATER SUPPLY
CA82508	HOUSEHOLDER		CA-02	MODOC	WATER SUPPLY
CA00956	TULE LAKE		CA-02	LASSEN	RECREATION
CA20042	SALTON SEA DIKE		CA-52	IMPERIAL	FLOOD CONTROL
Colorado					
CO01279	SPRING GULCH		CO-05	DOUGLAS	FLOOD CONTROL
CO00004	BEAR CREEK	BEAR CREEK LAKE	CO-06	JEFFERSON	FLOOD CONTROL
CO01280	CHERRY CREEK DAM	CHERRY CREEK LAKE	CO-06	ARAPAHOE	FLOOD CONTROL
CO01281	CHATFIELD DAM	CHATFIELD LAKE	CO-05	DOUGLAS	FLOOD CONTROL

CO00050	TRINIDAD	TRINIDAD LAKE	CO-04	LAS ANIMAS	OTHER
CO01283	JOHN MARTIN DAM & RESERVOIR	JOHN MARTIN RESERVOIR	CO-04	BENT	OTHER
CO00902	TELLER		CO-03	PUEBLO	RECREATION
CO01284	LOWER DERBY	LOWER DERBY LAKE	CO-01	ADAMS	WATER SUPPLY
CO01285	UPPER DERBY	UPPER DERBY LAKE	CO-01	ADAMS	WATER SUPPLY
CO01286	LADORA	LADORA LAKE	CO-01	ADAMS	WATER SUPPLY
CO01287	RESERVOIR E		CO-01	ADAMS	OTHER
CO01288	BASIN C		CO-01	ADAMS	OTHER
CO01292	JOHN TOWNSEND		CO-05	EL PASO	RECREATION
CO01293	NORTHSIDE		CO-05	EL PASO	RECREATION
CO82301	HAYNES STORAGE	HAYNES	CO-05	EL PASO	RECREATION
CO82302	LARGE BIRDFARM		CO-05	EL PASO	RECREATION
CO82303	MARY DAM	MARY LAKE		ADAMS	RECREATION
CO82304	HAVANA STREET DAM	HAVANA STREET LAKE		ADAMS	FISH & WILDLIFE
CO82305	LINDA ANNE	LINDA ANNE LAKE	CO-03	PUEBLO	RECREATION
CO01295	CONONAME 1	NON POTABLE RESERVOIR 1	CO-05	EL PASO	IRRIGATION
CO01296	CONONAME 2	NON POTABLE RESERVOIR 2	CO-05	EL PASO	IRRIGATION
CO01297	CONONAME 3	NON POTABLE RESERVOIR 3	CO-05	EL PASO	IRRIGATION
CO01298	CONONAME 4	NON POTABLE RESERVOIR 4	CO-05	EL PASO	IRRIGATION
CO01299	KETTLE CREEK DIVERSION DAM		CO-05	EL PASO	FLOOD CONTROL
CO00973	DOE ROCKY FLATS A-2		CO-02	JEFFERSON	OTHER
CO02244	DOE ROCKY FLATS B-5		CO-02	JEFFERSON	FLOOD CONTROL
CO02100	DOE ROCKY FLATS A-3	NORTH WALNUT CREEK RESER	CO-02	JEFFERSON	FLOOD CONTROL
CO02245	DOE ROCKY FLATS C-2		CO-02	JEFFERSON	FLOOD CONTROL
CO02243	DOE ROCKY FLATS A-4		CO-02	JEFFERSON	FLOOD CONTROL
CO01095	LAKE CAPOTE	PARGIN	CO-03	ARCHULETA	
CO02277	LANDSAT A-1		CO-03	MONTEZUMA	
CO82910	FORTY ACRE LAKE	BIG CREEK NO 4, FORTY ACRE	CO-03	MESA	IRRIGATION
CO01660	MARYS LAKE DIKE NO. 1	MARYS LAKE	CO-04	LARIMER	HYDROELECTRIC
CO01654	FLATIRON	FLATIRON RES, FLATIRON	CO-04	LARIMER	IRRIGATION

CO82904	BONHAM	BONHAM LAKE, BONHAM RES	CO-03	MESA	IRRIGATION
CO01663	RATTLESNAKE	RATTLESNAKE RES, PINWOOD	CO-04	LARIMER	HYDROELECTRIC
CO01662	OLYMPUS	LAKE ESTES	CO-04	LARIMER	IRRIGATION
CO01685	JACKSON GULCH	JACKSON GULCH RES	CO-03	MONTEZUMA	IRRIGATION
CO00387	CRYSTAL	CRYSTAL RES	CO-03	MONTROSE	IRRIGATION
CO01693	SILVER JACK	SILVER JACK RES	CO-03	GUNNISON	IRRIGATION
CO01670	WILLOW CREEK	WILLOW CREEK RES	CO-03	GRAND	IRRIGATION
CO01691	PAONIA	PAONIA RES	CO-03	GUNNISON	IRRIGATION
CO01692	RIFLE GAP	RIFLE GAP RES	CO-03	GARFIELD	IRRIGATION
CO00446	MT. ELBERT FOREBAY	MT. ELBERT FOREBAY RES	CO-03	LAKE	HYDROELECTRIC
CO00556	CRAWFORD	CRAWFORD RES	CO-03	DELTA	IRRIGATION
CO01683	FRUITGROWERS	FRUITGROWERS RES	CO-03	DELTA	IRRIGATION
CO01689	MORROW POINT	MORROW POINT RES	CO-03	MONTROSE	IRRIGATION
CO01697	VEGA	VEGA RES	CO-03	MESA	IRRIGATION
CO82912	RIDGWAY	RIDGWAY RESERVOIR	CO-03	OURAY	IRRIGATION
CO01669	SUGAR LOAF	TURQUOISE LAKE	CO-03	LAKE	IRRIGATION
CO01666	SHADOW MOUNTAIN	SHADOW MOUNTAIN RES	CO-03	GRAND	IRRIGATION
CO01659	HORSETOOTH	HORSETOOTH RES	CO-04	LARIMER	IRRIGATION
CO01658	GREEN MOUNTAIN	GREEN MOUNTAIN RES	CO-03	SUMMIT	IRRIGATION
CO00151	TAYLOR PARK	TAYLOR PARK LAKE	CO-03	GUNNISON	IRRIGATION
CO02045	TWIN LAKES	TWIN LAKES RESERVOIR	CO-03	LAKE	IRRIGATION
CO01650	CARTER LAKE DAM NO. 1	CARTER LAKE	CO-04	LARIMER	IRRIGATION
CO82915	MCPHEE	MCPHEE RES	CO-03	MONTEZUMA	IRRIGATION
CO00299	PUEBLO	PUEBLO RES	CO-03	PUEBLO	IRRIGATION
CO01656	GRANBY	LAKE GRANBY	CO-03	GRAND	IRRIGATION
CO01300	BONNY	BONNY RES	CO-04	YUMA	FLOOD CONTROL
CO01675	BLUE MESA	BLUE MESA RES	CO-03	GUNNISON	HYDROELECTRIC
CO82913	LITTLE HELL CREEK DIVERSION		CO-04	LARIMER	IRRIGATION
CO82917	POLE HILL CREEK DIVERSION	POLE HILL AFTERBAY	CO-04	LARIMER	HYDROELECTRIC
CO01961	LITTLE MEADOWS	PARKER BASIN NO. 2		MESA	IRRIGATION

CO00940	SILVER LAKE	BIG CREEK NO. 5, SILVER L	CO-03	MESA	IRRIGATION
CO01687	KITSON	KITSON RES		MESA	IRRIGATION
CO00834	BIG MEADOWS	B PARKER ASIN NO. 3,BIG M	CO-03	MESA	IRRIGATION
CO00937	ATKINSON	BIG CREEK NO. 3, ATKINSON	CO-03	MESA	IRRIGATION
CO01754	COTTONWOOD LAKE NO. 1		CO-03	MESA	IRRIGATION
CO01688	LEMON	LEMON RES	CO-03	LAPLATA	IRRIGATION
CO01671	PLATORO	PLATORO RES	CO-03	CONEJOS	IRRIGATION
CO01664	RUEDI	RUEDI RES	CO-03	PITKIN, EAGLE	IRRIGATION
CO01695	VALLECITO	VALLECITO RES	CO-03	LAPLATA	IRRIGATION
CO10064	SPRING CREEK		CO-03	JACKSON	FISH & WILDLIFE
CO10061	ANTELOPE		CO-03	JACKSON	FLOOD CONTROL
CO10059	MUSKRAT		CO-03	JACKSON	FISH & WILDLIFE
CO82938	NONAME 9				FLOOD CONTROL
CO82940	SPRAGUE LAKE				RECREATION
CO82413	BULKLEY DAM	BULKLEY RESERVOIR	CO-03	ROUTT	FISH & WILDLIFE
CO00217	BEAVER LAKE_*	BEAVER LAKE	CO-03	GUNNISON	RECREATION
CO00970	JUMPER CREEK		CO-03	MINERAL	IRRIGATION
CO01063	HENDERSON LAKE		CO-03	LA PLATA	FISH & WILDLIFE
CO01905	MUDDY PASS LAKE			ROUTT	RECREATION
CO02174	MARTIN LILY POND		CO-03	GRAND	IRRIGATION
CO00494	LAKE ISABEL		CO-03	CUSTER	RECREATION
CO00483	BALMAN RESERVOIR	BALMAN	CO-03	CUSTER	IRRIGATION
CO00676	CHAPMAN RESERVOIR	CHAPMAN	CO-03	PITKIN	RECREATION
CO00714	MONARCH LAKE		CO-03	GRAND	RECREATION
CO00773	LOVE LAKE		CO-03	MINERAL	RECREATION
CO00776	MILL CREEK	MILLION RESERVOIR	CO-03	RIO GRANDE	RECREATION
CO00884	JUMBO MESA CREEK 5_*	JUMBO	CO-03	MESA	RECREATION
CO01074	TAYLOR RESERVOIR	TAYLOR	CO-03	LA PLATA	FISH & WILDLIFE
CO01201	BRAINARD LAKE		CO-02	BOULDER	RECREATION
CO01591	MCGINNIS MEADOWS RESERVOIR	MCGINNIS RESERVOIR	CO-03	GARFIELD	RECREATION

CO01595	WHITE OWL DAM	WHITE OWL RESERVOIR		GARFIELD	RECREATION
CO01984	WILDHORSE		CO-04	WELD	IRRIGATION
CO01991	ZIMMERMAN LAKE		CO-04	LARIMER	RECREATION
CO02172	WERHONIG & GARDNER			GARFIELD	IRRIGATION
CO02261	MILLCREEK DAM NO 1_*	MILL CREEK NO 1	CO-03	HINSDALE	RECREATION
CO02571	SKINNY FISH RESERVOIR	SKINNY FISH	CO-03	GARFIELD	FISH & WILDLIFE
CO02620	DEER CREEK NO 4_*	DEER CREEK NO 4	CO-03	HINSDALE	RECREATION
CO02622	MILLCREEK NO 2_*	MILLCREEK NO 2	CO-03	HINSDALE	RECREATION
CO82417	COTTONWOOD LAKE		CO-03	CHAFFEE	RECREATION
CO82420	DIEMER RESERVOIR		CO-03	PITKIN	RECREATION
CO82421	LAKE OF THE WOODS		CO-03	GARFIELD	RECREATION
CO82431	DEER CREEK NO 2_*	DEER CREEK NO 2	CO-03	HINSDALE	FISH & WILDLIFE
CO82448	GLACIER SPG RETAINING POND_*	GLACIER SPRINGS POND	CO-03	MESA	FISH & WILDLIFE
CO00037	MANITOU PARK LAKE		CO-05	TELLER	RECREATION

Connecticut

CT00505	NORTHFIELD BROOK DAM	NORTHFIELD BROOK LAKE	CT-06	LITCHFIELD	FLOOD CONTROL
CT00504	HOP BROOK DAM	HOP BROOK LAKE	CT-05	NEW HAVEN	FLOOD CONTROL
CT00508	BLACK ROCK DAM	BLACK ROCK LAKE	CT-06	LITCHFIELD	FLOOD CONTROL
CT00507	HANCOCK BROOK DAM	HANCOCK BROOK LAKE	CT-06	LITCHFIELD	FLOOD CONTROL
CT00502	WEST THOMPSON DAM	WEST THOMPSON LAKE	CT-02	WINDHAM	FLOOD CONTROL
CT00503	MANSFIELD HOLLOW DAM	MANSFIELD HOLLOW LAKE	CT-02	TOLLAND	FLOOD CONTROL
CT00506	COLEBROOK RIVER DAM	COLEBROOK RIVER LAKE	CT-06	LITCHFIELD	FLOOD CONTROL

Florida

FL00310	W.P. FRANKLIN LOCK & DAM (S-79)	CALOOSAHATCHEE RIVER	FL-14	LEE	NAVIGATION
FL00142	INGLIS SPILLWAY & DAM	LAKE ROUSSEAU	FL-05	CITRUS	NAVIGATION
FL00156	RODMAN DAM AND SPILLWAY	LAKE OKLAWAHA	FL-06	PUTNAM	NAVIGATION
FL00435	JIM WOODRUFF DAM	LAKE SEMINOLE		GADSDEN	NAVIGATION
FL00015	USAF DAM (WEEKLY POND)	PLEW LAKE	FL-01	OKALOOSA	RECREATION

FL00468	UPPER MEMORIAL LAKE DAM	UPPER MEMORIAL LAKE	FL-01	OKALOOSA	RECREATION
FL00469	LOWER MEMORIAL LAKE DAM	LOWER MEMORIAL LAKE	FL-01	OKALOOSA	RECREATION
FL00593	DUCK POND DAM	DUCK POND	FL-01	OKALOOSA	RECREATION
FL82301	AVON PARK 1				FLOOD CONTROL
FL82302	AVON PARK 2				FLOOD CONTROL
FL00702	LAKE FRETWELL		FL-06	DUVAL	RECREATION
FL00703	CASA LINDA LAKE		FL-03	DUVAL	RECREATION
Georgia					
GA82201	NEW SAVANNAH BLUFF LOCK AND DAM		GA-11	RICHMOND, GA/AIKEN, SC	FLOOD CONTROL
GA00821	CARTERS MAIN DAM	CARTERS LAKE	GA-09	MURRAY	FLOOD CONTROL
GA03742	ALLATOONA LAKE DAM AND POWERHOUSE	ALLATOONA LAKE	GA-07	BARTOW	FLOOD CONTROL
GA00820	WEST POINT	WEST POINT LAKE	GA-07	TROUP	FLOOD CONTROL
GA00068	RICHARD B. RUSSELL DAM	RICHARD B. RUSSELL LAKE		ELBERT, GA/ABBEVILLE, SC	HYDROELECTRIC
GA00824	BUFORD	LAKE SIDNEY LANIER		FORSYTH	FLOOD CONTROL
GA01702	HARTWELL DAM	HARTWELL LAKE	GA-10	HART, GA/ANDERSON, SC	HYDROELECTRIC
GA01701	J. STROM THURMOND DAM	J. STROM THURMOND LAKE		COLUMBIA, GA/MCCORMICK, SC	HYDROELECTRIC
GA01710	KINGS POND DAM	KINGS POND	GA-02	CHATTAHOOCHEE	RECREATION
GA01712	VICTORY POND DAM	VICTORY POND	GA-02	CHATTAHOOCHEE	RECREATION
GA01713	TWILIGHT POND DAM	TWILIGHT POND	GA-02	CHATTAHOOCHEE	RECREATION
GA01714	WEEMS POND DAM	WEEMS POND	GA-02	CHATTAHOOCHEE	RECREATION
GA01715	POND 1 DAM	PINEVIEW LAKE		LONG	RECREATION
GA01721	BUTLER RESERVOIR	BUTLER RESERVIOR		RICHMOND	WATER SUPPLY
GA01722	GORDON LAKE DAM	GORDON LAKE	GA-11	RICHMOND	RECREATION
GA01728	SOIL EROSION LAKE DAM	SOIL EROSION LAKE	GA-11	RICHMOND	RECREATION
GA01972	MARCHMAN LAKE DAM	MARCHMAN LAKE	GA-03	CLAYTON	RECREATION
GA01973	STEPHENS LAKE DAM	STEPHENS LAKE	GA-03	CLAYTON	RECREATION
GA02126	FORT GORDON RESERVIOR DAM	FORT GORDON RESERVIOR	GA-11	RICHMOND	FISH & WILDLIFE
GA82301	POND 26 DAM	NEW METZ POND	GA-01	TATTNALL	RECREATION
GA82302	POND 17 DAM	DAISY POND	GA-01	EVANS	RECREATION

GA82303	POND 4 DAM	CANOCHEE CREEK LAKE	GA-01	LIBERTY	FISH & WILDLIFE
GA82304	POND 3 DAM	HOLBROOK POND	GA-01	LIBERTY	RECREATION
GA82305	POND 2 DAM	GLISSONS MILL POND	GA-01	EVANS	RECREATION
GA82306	POND 28 DAM	DOGWOOD LAKE		LIBERTY	RECREATION
GA82309	POND 29 DAM	OGLETHORPE POND	GA-01	CHATHAM	RECREATION
GA10008	PIEDMONT POND #11A		GA-11	JASPER	FISH & WILDLIFE
GA10002	PIEDMONT 5 POINTS		GA-03	JONES	FISH & WILDLIFE
GA10011	PIEDMONT POND #22A		GA-03	JONES	FISH & WILDLIFE
GA10005	PIEDMONT POND #6A		GA-11	JASPER	FISH & WILDLIFE
GA10007	PIEDMONT POND #9A		GA-11	JASPER	FISH & WILDLIFE
GA10009	PIEDMONT POND #11B		GA-11	JASPER	FISH & WILDLIFE
GA10010	PIEDMONT POND #21A		GA-03	JONES	FISH & WILDLIFE
GA10003	ALLISON		GA-03	JONES	FISH & WILDLIFE
GA10004	PIEDMONT POND #2A			JASPER	FISH & WILDLIFE
GA82902	ISLAND FORD POND				TAILINGS
GA82903	SOPE CREEK				TAILINGS
GA82904	FORT PULASKI NM HISTORIC DIKE				FLOOD CONTROL
GA11101	BLUE RIDGE	LAKE TOCCOA	GA-09	FANNIN	HYDROELECTRIC
GA29101	NOTTELY	NOTTELY LAKE	GA-09	UNION	FLOOD CONTROL
Iowa					
IA00018	BIG CREEK BARRIER DAM	BIG CREEK PONDING AREA	IA-04	POLK	FLOOD CONTROL
IA00007	MISSISSIPPI RIVER DAM 15	POOL NO 15		ROCK ISLAND	NAVIGATION
IA00012	CORALVILLE DAM	CORALVILLE LAKE	IA-01	JOHNSON	FLOOD CONTROL
IA00009	MISSISSIPPI RIVER DAM 17	POOL NO 17		MERCER	NAVIGATION
IA00004	MISSISSIPPI RIVER DAM 12	POOL NO 12		JACKSON	NAVIGATION
IA00016	RATHBUN DAM	RATHBUN LAKE	IA-03	APPANOOSE	FLOOD CONTROL
IA00008	MISSISSIPPI RIVER DAM 16	POOL NO 16		ROCK ISLAND	NAVIGATION
IA00010	MISSISSIPPI RIVER DAM 18	POOL NO 18		HENDERSON	NAVIGATION
IA00001	LOCK & DAM #10	POOL 10	IA-02	CLAYTON	NAVIGATION

IA00013	RED ROCK DAM	LAKE RED ROCK	IA-03	MARION	FLOOD CONTROL
IA00003	MISSISSIPPI RIVER DAM 11	POOL NO 11		DUBUQUE	NAVIGATION
IA00005	MISSISSIPPI RIVER DAM 13	LAKE CLINTON		WHITESIDE	NAVIGATION
IA00015	BIG CREEK TERMINAL DAM	BIG CREEK LAKE	IA-04	POLK	OTHER
IA00017	SAYLORVILLE DAM	SAYLORVILLE LAKE	IA-04	POLK	FLOOD CONTROL
IA00006	MISSISSIPPI RIVER DAM 14	POOL NO 14		SCOTT	NAVIGATION
IA00019	IOWA ARMY AMMUNITION PLANT DAM		IA-03	DES MOINES	RECREATION
IA82901	DESOTO		IA-04	POTTAWATTAMIE	RECREATION
Idaho					
ID00288	LUCKY PEAK	LUCKY PEAK LAKE	ID-02	ADA	FLOOD CONTROL
ID00287	DWORSHAK	DWORSHAK RESERVOIR	ID-01	CLEARWATER	FLOOD CONTROL
ID00319	ALBENI FALLS	PEND OREILLE RIVER AND LAKE	ID-01	BONNER	HYDROELECTRIC
ID00203	EQUALIZER	EQUALIZER RESERVOIR, BLACK	ID-02	BINGHAM	IRRIGATION
ID00204	BLACKFOOT	BLACKFOOT RIVER RESERVOIR	ID-02	CARIBOU	IRRIGATION
ID00267	GRAYS LAKE - NORTH END		ID-02	BONNEVILLE	IRRIGATION
ID00268	GRAYS LAKE - CLARKS CUT		ID-02	CARIBOU	IRRIGATION
ID00286	MOUNTAIN VIEW		ID-01	OWYHEE	RECREATION
ID00281	BOISE RIVER DIVERSION		ID-02	ADA	IRRIGATION
ID10002	SOLDIER'S MEADOW	SOLDIER'S MEADOW RES	ID-01	NEZ PERCE	IRRIGATION
ID00261	RESERVOIR A	MANN'S LAKE	ID-01	NEZ PERCE	IRRIGATION
ID00285	MANN CREEK	MANN CREEK RES, SPANGLER	ID-01	WASHINGTON	IRRIGATION
ID00376	HUBBARD	HUBBARD RES	ID-01	ADA	IRRIGATION
ID00282	BLACK CANYON DIVERSION	BLACK CANYON RES	ID-01	GEM	IRRIGATION
ID00344	RIRIE	RIRIE RES	ID-02	BONNEVILLE	FLOOD CONTROL
ID00280	ARROWROCK	ARROWROCK RES		BOISE, ELMORE	IRRIGATION
ID00284	DEADWOOD	DEADWOOD RES	ID-01	VALLEY	IRRIGATION
ID00279	ANDERSON RANCH	ANDERSON RANCH RES	ID-02	ELMORE	IRRIGATION
ID00272	ISLAND PARK	ISLAND PARK RES	ID-02	FREMONT	IRRIGATION
ID00276	DEER FLAT UPPER	LAKE LOWELL	ID-01	CANYON	IRRIGATION

ID00275	MINIDOKA	LAKE WALCOTT		MINIDOKA, CASSIA	IRRIGATION
ID00273	PALISADES	PALISADES RES	ID-02	BONNEVILLE	IRRIGATION
ID00283	CASCADE	CASCADE RES	ID-01	VALLEY	IRRIGATION
ID00274	AMERICAN FALLS	AMERICAN FALLS RES	ID-02	POWER	IRRIGATION
ID82403	UPPER BEAR DAM		ID-01	IDAHO	RECREATION
Illinois					
IL82201	LOCKPORT LOCK & DAM		IL-11	WILL	NAVIGATION
IL00115	KASKASKIA LOCK & DAM	KASKASKIA RIVER	IL-12	RANDOLPH	NAVIGATION
IL01013	THOMAS J. O'BRIEN CONTROLLING WORKS	LAKE CALUMET	IL-02	COOK	NAVIGATION
IL00118	LAKE SHELBYVILLE DAM	LAKE SHELBYVILLE	IL-19	SHELBY	FLOOD CONTROL
IL00003	MARSEILLES DAM	MARSEILLES LAKE	IL-11	LASALLE	NAVIGATION
IL00117	REND LAKE DAM	REND LAKE	IL-19	FRANKLIN	FLOOD CONTROL
IL00050	SMITHLAND LOCKS & DAM			POPE	NAVIGATION
IL00116	MELVIN PRICE LOCK & DAM	MISS RIVER		ST CHARLES	NAVIGATION
IL01238	MISSISSIPPI RIVER DAM 19	LAKE KEOKUK		LEE	HYDROELECTRIC
IL01015	LA GRANGE LOCK & DAM	LA GRANGE LAKE		CASS	NAVIGATION
IL01014	PEORIA LOCK & DAM	PEORIA LAKE	IL-18	PEORIA	NAVIGATION
IL00002	DRESDEN ISLAND LOCK & DAM	DRESDEN ISLAND LAKE	IL-11	GRUNDY	NAVIGATION
IL00001	BRANDON ROAD LOCK & DAM	BRANDON ROAD LAKE	IL-11	WILL	NAVIGATION
IL00004	STARVED ROCK LOCK & DAM	STARVED ROCK LAKE	IL-11	LASALLE	NAVIGATION
IL00113	CARLYLE LAKE DAM	CARLYLE LAKE	IL-20	CLINTON	FLOOD CONTROL
IL00798	ARSENAL POWER DAM	MISSISSIPPI RIVER POOL 15	IL-17	ROCK ISLAND	HYDROELECTRIC
IL01089	MOLINE POWER DAM	MISSISSIPPI RIVER POOL 15	IL-17	ROCK ISLAND	HYDROELECTRIC
IL01111	DOYLE LAKE DAM	DOYLE LAKE	IL-11	WILL	RECREATION
IL01112	KEMERY LAKE DAM	KEMERY LAKE	IL-11	WILL	WATER SUPPLY
IL00085	DEVIL'S KITCHEN		IL-12	WILLIAMSON	RECREATION
IL00084	LITTLE GRASSY		IL-12	WILLIAMSON	RECREATION
IL10000	CRAB ORCHARD		IL-12	WILLIAMSON	RECREATION
IL82402	TECHUMSEH		IL-19	HARDIN	RECREATION

IL00035	WHOOPIE CAT	WHOOPIE CAT LAKE	IL-19	HARDIN	RECREATION
IL00101	POUNDS HOLLOW	POUNDS LAKE	IL-19	GALLATIN	RECREATION
IL82403	ONE HORSE GAP	ONE HORSE GAP LAKE	IL-19	POPE	RECREATION
IL82401	LITTLE CEDAR		IL-12	JACKSON	RECREATION
IL00102	LAKE GLENDALE		IL-19	POPE	RECREATION
IL00037	LITTLE CACHE CREEK	LITTLE CACHE	IL-19	JOHNSON	RECREATION
IL00039	BAY CREEK	SUGAR CREEK	IL-19	POPE	RECREATION
IL00038	STRUCTURE NO. 12	DUTCHMAN LAKE	IL-19	JOHNSON	RECREATION
Indiana					
IN03006	HUNTINGTON LAKE DAM	HUNTINGTON LAKE	IN-04	HUNTINGTON	FLOOD CONTROL
IN03002	CAGLES MILL LAKE DAM	CAGLES MILL LAKE	IN-07	PUTNAM	FLOOD CONTROL
IN03003	CECIL M HARDEN LAKE DAM	CECIL M. HARDEN LAKE	IN-07	PARKE	FLOOD CONTROL
IN03005	SALAMONIE LAKE DAM	SALAMONIE LAKE	IN-05	WABASH	FLOOD CONTROL
IN03004	MISSISSINewa LAKE DAM	MISSISSINewa LAKE	IN-05	MIAMI	FLOOD CONTROL
IN03017	BROOKVILLE LAKE DAM	BROOKVILLE LAKE	IN-09	FRANKLIN	FLOOD CONTROL
IN03018	PATOKA LAKE DAM	PATOKA LAKE	IN-09	DUBOIS	FLOOD CONTROL
IN03001	MONROE LAKE DAM	MONROE LAKE	IN-08	MONROE	FLOOD CONTROL
IN03022	JENNY LIND LAKE DAM	JENNY LIND POND	IN-09	CLARK	RECREATION
IN03007	GREENWOOD LAKE DAM	GREENWODD LAKE	IN-08	MARTIN	FLOOD CONTROL
IN03008	SOIL-WATER CONSERVANCY DIST DAM #1	LAKE GALLIMORE	IN-08	MARTIN	FLOOD CONTROL
IN03009	SOIL-WATER CONSERVANCY DIST DAM	SEED TICK	IN-08	MARTIN	FLOOD CONTROL
IN20001	RICHART		IN-09	JACKSON	FISH & WILDLIFE
IN20002	STANFIELD		IN-09	JACKSON	FISH & WILDLIFE
IN20003	MOSS		IN-09	JACKSON	FISH & WILDLIFE
IN82407	ANDERSON RIVER STRUCTURE U 38	U38		CRAWFORD	RECREATION
IN82401	STRUCTURE NO.1	SADDLE LAKE	IN-09	PERRY	RECREATION
IN82403	STRUCTURE NO FOUR	TIPSAW LAKE	IN-09	PERRY	RECREATION
IN82404	STRUCTURE NO SEVEN	TUCKER LAKE	IN-08	ORANGE	RECREATION
IN00140	STR NO SIX	INDIAN LAKE	IN-09	PERRY	RECREATION

IN00176	STR NO FIVE	CELINA LAKE	IN-09	PERRY	RECREATION
IN03021	OLD TIMBERS LAKE DAM	OLD TIMBERS LAKE	IN-09	RIPLEY	FISH & WILDLIFE
Kansas					
KS00049	BIG HILL	BIG HILL LAKE	KS-02	LABETTE	FLOOD CONTROL
KS00003	FALL RIVER	FALL RIVER LAKE	KS-04	GREENWOOD	FLOOD CONTROL
KS00011	TORONTO	TORONTO LAKE	KS-02	WOODSON	FLOOD CONTROL
KS00001	COUNCIL GROVE	COUNCIL GROVE LAKE		MORRIS	FLOOD CONTROL
KS00005	KANOPOLIS DAM	KANOPOLIS LAKE	KS-01	ELLSWORTH	FLOOD CONTROL
KS00010	POMONA DAM	POMONA LAKE	KS-02	OSAGE	FLOOD CONTROL
KS00002	ELK CITY	ELK CITY LAKE		MONTGOMERY	FLOOD CONTROL
KS82201	HILLSDALE DAM	HILLSDALE LAKE	KS-03	MIAMI	FLOOD CONTROL
KS00006	MARION	MARION LAKE	KS-01	MARION	FLOOD CONTROL
KS00007	MELVERN DAM	MELVERN LAKE	KS-02	OSAGE	FLOOD CONTROL
KS00026	CLINTON DAM	CLINTON LAKE	KS-02	DOUGLAS	FLOOD CONTROL
KS00027	EL DORADO LAKE		KS-04	BUTLER	FLOOD CONTROL
KS00013	WILSON DAM	WILSON LAKE	KS-01	RUSSELL	FLOOD CONTROL
KS00004	JOHN REDMOND LAKE		KS-02	COFFEY	FLOOD CONTROL
KS00009	PERRY DAM	PERRY LAKE	KS-02	JEFFERSON	FLOOD CONTROL
KS00012	TUTTLE CREEK DAM	TUTTLE CREEK LAKE		RILEY	FLOOD CONTROL
KS00008	MILFORD DAM	MILFORD LAKE	KS-02	GEARY	FLOOD CONTROL
KS00014	BREAKNECK LAKE DAM	BREAKNECK LAKE		RILEY	OTHER
KS00015	CAMP MOON LAKE DAM	CAMP MOON LAKE	KS-02	GEARY	RECREATION
KS00024	NORTON	NORTON RES	KS-01	NORTON	IRRIGATION
KS00023	LOVEWELL	LOVEWELL RES	KS-01	JEWELL	FLOOD CONTROL
KS00022	KIRWIN	KIRWIN RES	KS-01	PHILLIPS	IRRIGATION
KS00019	CEDAR BLUFF	CEDAR BLUFF RES	KS-01	TREGO	IRRIGATION
KS00025	WEBSTER	WEBSTER RES	KS-01	ROOKS	FLOOD CONTROL
KS00017	CHENEY	CHENEY RES		SEDGWICK, RENO, KINGMAN	WATER SUPPLY
KS00021	GLEN ELDER	WACONDA LAKE, GLENN ELDER RES	KS-01	MITCHELL	IRRIGATION

Kentucky

KY03008	BARREN RIVER LOCK & DAM 1		BARREN	NAVIGATION
KY03025	KENTUCKY RIVER LOCK & DAM 13		KY-05 LEE	NAVIGATION
KY03061	MARTINS FORK DAM	MARTINS FORK LAKE	KY-05 HARLAN	FLOOD CONTROL
KY03026	KENTUCKY RIVER LOCK & DAM 14		KY-05 LEE	NAVIGATION
KY03006	GREEN RIVER LOCK & DAM 6		KY-02 EDMONSON	NAVIGATION
KY03005	GREEN RIVER LOCK & DAM 5		BUTLER	NAVIGATION
KY03014	KENTUCKY RIVER LOCK & DAM 2		HENRY	NAVIGATION
KY03020	KENTUCKY RIVER LOCK & DAM 8		KY-06 JESSAMINE	NAVIGATION
KY03023	KENTUCKY RIVER LOCK & DAM 11		ESTILL	NAVIGATION
KY03024	KENTUCKY RIVER LOCK & DAM 12		KY-06 ESTILL	NAVIGATION
KY03056	CARR FORK LAKE DAM	CARR FORK LAKE	KY-05 KNOTT	FLOOD CONTROL
KY03017	KENTUCKY RIVER LOCK & DAM 5		ANDERSON	NAVIGATION
KY03022	KENTUCKY RIVER LOCK & DAM 10		KY-06 MADISON	NAVIGATION
KY03021	KENTUCKY RIVER LOCK & DAM 9		KY-06 JESSAMINE	NAVIGATION
KY03018	KENTUCKY RIVER LOCK & DAM 6		KY-06 WOODFORD	RECREATION
KY03029	DEWEY DAM	DEWEY LAKE	KY-05 FLOYD	FLOOD CONTROL
KY03016	KENTUCKY RIVER LOCK & DAM 4		KY-06 FRANKLIN	NAVIGATION
KY03028	FISHTRAP DAM	FISHTRAP LAKE	KY-05 PIKE	FLOOD CONTROL
KY82202	PAINTSVILLE DAM	PAINTSVILLE LAKE	KY-05 JOHNSON	FLOOD CONTROL
KY03015	KENTUCKY RIVER LOCK & DAM 3		HENRY	NAVIGATION
KY03027	BUCKHORN LAKE DAM	BUCKHORN LAKE	KY-05 PERRY	FLOOD CONTROL
KY03013	KENTUCKY RIVER LOCK & DAM 1		KY-04 CARROLL	RECREATION
KY03030	GRAYSON DAM	GRAYSON LAKE	KY-04 CARTER	FLOOD CONTROL
KY82201	YATESVILLE DAM	YATESVILLE LAKE	KY-04 LAWRENCE	FLOOD CONTROL
KY03003	GREEN RIVER LOCK & DAM 2		KY-01 MCLEAN	FLOOD CONTROL
KY00051	TAYLORSVILLE LAKE DAM	TAYLORSVILLE LAKE	KY-02 SPENCER	FLOOD CONTROL
KY03002	GREEN RIVER LOCK & DAM 1		KY-01 HENDERSON	FLOOD CONTROL
KY03012	ROUGH RIVER LAKE DAM	ROUGH RIVER LAKE	KY-02 BRECKINRIDGE	FLOOD CONTROL

KY03011	NOLIN LAKE DAM	NOLIN LAKE	KY-02	EDMONSON	FLOOD CONTROL
KY03041	OHIO RIVER LOCKS & DAM 52		KY-01	MCCRACKEN	FLOOD CONTROL
KY03007	GREEN RIVER LAKE DAM	GREEN RIVER LAKE	KY-02	TAYLOR	FLOOD CONTROL
KY03009	BARREN RIVER LAKE DAM	BARREN RIVER LAKE	KY-02	BARREN	FLOOD CONTROL
KY03042	OHIO RIVER LOCKS & DAM 53		KY-01	BALLARD	NAVIGATION
KY03059	NEWBURGH LOCKS & DAM		KY-01	HENDERSON	NAVIGATION
KY03034	MCALPINE LOCKS & DAM		KY-03	JEFFERSON	NAVIGATION
KY03060	UNIONTOWN LOCKS & DAM		KY-01	UNION	FLOOD CONTROL
KY03010	WOLF CREEK	LAKE CUMBERLAND	KY-01	RUSSELL	HYDROELECTRIC
KY03001	BARKLEY DAM	LAKE BARKLEY	KY-01	LYON	HYDROELECTRIC
KY03019	KENTUCKY RIVER LOCK & DAM 7			JESSAMINE	NAVIGATION
KY03031	GREENUP LOCK & DAM		KY-04	GREENUP	NAVIGATION
KY03033	MARKLAND LOCKS & DAM		KY-04	GALLATIN	HYDROELECTRIC
KY03058	CANNELTON LOCKS & DAM		KY-02	HANCOCK	NAVIGATION
KY03046	LAUREL DAM	LAUREL LAKE		LAUREL	FLOOD CONTROL
KY03055	CAVE RUN LAKE DAM	CAVE RUN LAKE	KY-06	BATH	FLOOD CONTROL
KY00848	LAKE BUCK DAM	LAKE BUCK	KY-06	MADISON	RECREATION
KY03035	LEBANON JUNCTION LAKE DAM	LEBANON JUNCTION LAKE	KY-02	BULLITT	RECREATION
KY03044	SANDER SPRING BRANCH STR #5	SANDER SPRING BRANCH LAKE	KY-02	HARDIN	FISH & WILDLIFE
KY03045	UPPER DOUGLAS STRUCTURE NUMBER 1	UPPER DOUGLAS LAKE	KY-02	HARDIN	RECREATION
KY03062	GRAHAMTON LAKE DAM	GRAHAMTON LAKE	KY-02	MEADE	RECREATION
KY03063	WILCOX LAKE DAM	WILCOX LAKE	KY-02	BULLITT	RECREATION
KY03064	LOWER DOUGLAS STRUCTURE NO 2	LOWER DOUGLAS LAKE	KY-02	HARDIN	RECREATION
KY82301	DUCK LAKE DAM	DUCK LAKE	KY-02	BULLITT	RECREATION
KY82303	TOBACCO LEAF LAKE DAM	TOBACCO LEAF LAKE	KY-02	MEADE	RECREATION
KY14302	DUNCAN	DUNCAN LAKE		LYON	RECREATION
KY00174	HEMATITE	HEMATITE LAKE	KY-01	TRIGG	RECREATION
KY14301	LONG CREEK	HONKER LAKE;HONKER	KY-01	LYON	RECREATION
KY22101	CROOKED CREEK	ENERGY LAKE;ENERGY DAM	KY-01	TRIGG	RECREATION
KY15701	KENTUCKY	KENTUCKY LAKE		MARSHALL;LIVINGSTON	NAVIGATION

KY00280	LAKE VEGA DAM	LAKE VEGA	KY-06	MADISON	WATER SUPPLY
Louisiana					
LA00179	BAYOU BODCAU DAM	BODCAU LAKE	LA-05	BOSSIER	FLOOD CONTROL
LA00088	BOGUE CHITTO SILL & PEARL R LOCK 2	BOGUE CHITTO	LA-01	ST TAMMANY	NAVIGATION
LA00086	POOLS BLUFF SILL & PEARL R LOCK	PEARL RIVER		WASHINGTON	NAVIGATION
LA00089	PEARL RIVER LOCK #1 & SPILLWAY	POOL NO.1	LA-01	ST TAMMANY	NAVIGATION
LA00180	WALLACE LAKE DAM	WALLACE LAKE	LA-04	CADDO	FLOOD CONTROL
LA00348	RED RIVER W.W. LOCK & DAM #1	RED RIVER WATERWAY POOL	LA-06	CATAHOULA	NAVIGATION
LA00349	JOHN OVERTON L/D (RED RIVER W.W. 2)	POOL NO.2	LA-06	RAPIDES	NAVIGATION
LA00177	COLUMBIA LOCK & DAM	COLUMBIA UPPER POOL	LA-05	CALDWELL	NAVIGATION
LA00174	LITTLE RIVER CLOSURE DAM	LITTLE RIVER	LA-06	CATAHOULA	RECREATION
LA00175	JONESVILLE LOCK & DAM	JONESVILLE POOL	LA-06	CATAHOULA	NAVIGATION
LA00351	RED RIVER W.W. LOCK & DAM #4	POOL NO.4		RED RIVER	NAVIGATION
LA00350	RED RIVER W.W. LOCK & DAM #3	POOL NO.3		NATCHITOCHE	NAVIGATION
LA00352	RED RIVER W.W. LOCK & DAM #5	POOL NO.5	LA-05	BOSSIER	NAVIGATION
LA00181	CADDO DAM	CADDO LAKE	LA-05	CADDO	FLOOD CONTROL
LA00170	ALLIGATOR LAKE DAM	ALLIGATOR LAKE	LA-07	VERNON PARISH	RECREATION
LA00171	ENGINEER LAKE DAM	ENGINEER LAKE	LA-07	VERNON PARISH	RECREATION
LA00172	HARMON LAKE DAM	HARMON LAKE	LA-05	BOSSIER	RECREATION
LA82301	ENGLAND				OTHER
Massachusetts					
MA00972	WESTVILLE DAM	WESTVILLE LAKE	MA-02	WORCESTER	FLOOD CONTROL
MA00964	BUFFUMVILLE DAM	BUFFUMVILLE LAKE	MA-02	WORCESTER	FLOOD CONTROL
MA00968	LITTLEVILLE DAM	LITTLEVILLE LAKE	MA-01	HAMPDEN	FLOOD CONTROL
MA00970	TULLY DAM	TULLY LAKE	MA-01	WORCESTER	FLOOD CONTROL
MA00966	EAST BRIMFIELD DAM	EAST BRIMFIELD LAKE	MA-02	WORCESTER	FLOOD CONTROL
MA01269	WADE POND DAM	WADE POND	MA-02	HAMPDEN	RECREATION
MA00855	GREENWOOD LAKE		MA-03	BRISTOL	RECREATION

MA82901	MOODY STREET FEEDER				HYDROELECTRIC
Maryland					
MD00069	JENNINGS RANDOLPH DAM	JENNINGS RANDOLPH LAKE		GARRETT, MD & MINERAL, WV	FLOOD CONTROL
MD00067	ATKISSON DAM	ATKISSON RESERVOIR		HARFORD	WATER SUPPLY
MD00070	LOWER LAKE ROYER DAM	LOWER LAKE ROYER	MD-06	WASHINGTON	RECREATION
MD00157	UPPER LAKE ROYER DAM	UPPER LAKE ROYER	MD-06	WASHINGTON	RECREATION
MD00066	LAKE ALLEN	SOLDIERS LAKE	MD-05	ANN ARUNDEL	
MD00112	REDINGTON LAKE		MD-05	PRINCE GEORGE	OTHER
MD10007	CASH LAKE		MD-05	PRINCE GEORGES	OTHER
MD00078	DAM NO. 4	(HIS. STR. HIS.40-11)			HYDROELECTRIC
MD00137	DAM NO. 3				HYDROELECTRIC
MD10004	DAM NO. 5				HYDROELECTRIC
MD10005	SENECA DAM 2				RECREATION
Maine					
ME00491	LITTLE MADAWASKA DAM	LITTLE MADAWASKA RESERVOIR	ME-02	AROOSTOOK	WATER SUPPLY
ME00495	MALABEAM LAKE DAM	MALABEAM LAKE	ME-02	AROOSTOOK	RECREATION
ME00354	CARLTON POND		ME-02	WALDO	RECREATION
ME00145	CRAIG POND		ME-02	HANCOCK	RECREATION
ME82401	PATTE MILL DAM	PATTE POND	ME-02	OXFORD	FISH & WILDLIFE
Michigan					
MI82201	SOO COMPENSATING WORKS	SUPERIOR	MI-01	CHIPPEWA	NAVIGATION
MI82405	BUCK CREEK DAM	BUCK CREEK_DAM		IOSCO	FISH & WILDLIFE
MI00871	SCOTTS MARSH DIKE 1	SCOTTS MARSH	MI-01	SCHOOLCRAFT	FISH & WILDLIFE
MI00078	LOWER DAM		MI-01	HOUGHTON	
MI82402	MINNIE LAKE DAM	MINNIE LAKE	MI-02	NEWAYGO	RECREATION
MI82404	BRANDY BROOK DAM	BRANDY BROOK WATER FOW	MI-02	WEXFORD	FISH & WILDLIFE
MI01234	HAMILTON MARSH		MI-01	DELTA	FISH & WILDLIFE

MI82401	OLGA LAKE DAM	OLGA LAKE			FISH & WILDLIFE
MI82407	SPRINKLER LAKE DAM			IOSCO	FISH & WILDLIFE
MI00283	NAHMA MARSH DAM	NAHMA MARSH	MI-01	DELTA	FISH & WILDLIFE
MI00873	LITTLE BASS LAKE		MI-01	SCHOOLCRAFT	RECREATION
MI00875	MUDDY GRIMES			SCHOOLCRAFT	FISH & WILDLIFE
MI00818	ELMHIRST CREEK DAM	ELMHIRST CREEK IMPOUNDMENT	MI-01	MACKINAC	FISH & WILDLIFE
MI02213	SYLVESTER CR	SYLVESTER FLOWAGE	MI-01	CHIPPEWA	FISH & WILDLIFE
MI82409	TUTTLE MARSH DAM			IOSCO	FISH & WILDLIFE
MI00155	BREVOORT LAKE DAM	BREVOORT LAKE	MI-01	MACKINAC	RECREATION
Minnesota					
MN00574	ORWELL RESERVOIR & DAM	ORWELL RESERVOIR	MN-07	OTTER TAIL	FLOOD CONTROL
MN00593	LOCK & DAM #1	POOL 1	MN-05	HENNEPIN	NAVIGATION
MN00581	HIGHWAY 75 DAM	NOT ASSIGNED	MN-02	LAC QUI PARLE	FLOOD CONTROL
MN00577	WHITE ROCK DAM	MUD LAKE	MN-07	TRAVERSE	FLOOD CONTROL
MN00579	MARSH LAKE DAM	MARSH LAKE		LAC QUI PARLE	FLOOD CONTROL
MN00588	LOCK & DAM #5A	POOL 5A	MN-01	WINONA	NAVIGATION
MN00580	LAC QUI PARLE DAM	LAC QUI PARLE RESERVOIR		LAC QUI PARLE	FLOOD CONTROL
MN00583	SANDY LAKE DAM & LOCK	SANDY LAKE RESERVOIR	MN-08	AITKIN	FLOOD CONTROL
MN00576	RESERVATION HIGHWAY	LAKE TRAVERSE RESERVOIR		TRAVERSE	FLOOD CONTROL
MN00589	LOCK & DAM #5	POOL 5		WINONA	NAVIGATION
MN00584	POKEGAMA LAKE DAM	POKEGAMA RESERVOIR	MN-08	ITASCA	FLOOD CONTROL
MN00596	GULL LAKE	GULL LAKE RESERVOIR	MN-08	CASS	FLOOD CONTROL
MN00587	LOCK & DAM #7	POOL 7		WINONA	NAVIGATION
MN00582	PINE RIVER DAM	PINE RIVER RESERVOIR	MN-08	CROW WING	FLOOD CONTROL
MN00595	LOCK & DAM #3	POOL 3	MN-01	GOODHUE	NAVIGATION
MN00586	WINNIBIGOSHISH DAM	WINNIBIGOSHISH		CASS	FLOOD CONTROL
MN00585	LEECH LAKE DAM	LEECH LAKE RESERVOIR	MN-08	CASS	FLOOD CONTROL
MN00573	LOWER RED LAKE DAM	RED LAKE RESERVOIR	MN-07	CLEARWATER	FLOOD CONTROL
MN82202	WATSON SAG WEIR	WATSON SAG & CHIPPEWA RIV	MN-02	CHIPPEWA	FLOOD CONTROL

MN00590	ST ANTHONY FALLS UPPER LOCK & DAM	UPPER ST ANTHONY FALLS	MN-05	HENNEPIN	HYDROELECTRIC
MN00591	ST ANTHONY FALLS LOWER LOCK & DAM	INTERMEDIATE POOL	MN-05	HENNEPIN	HYDROELECTRIC
MN00594	LOCK & DAM #2	POOL 2	MN-06	DAKOTA	NAVIGATION
MN82902	THREE BEARS LAKE - WEST				FISH & WILDLIFE
MN82448	WABANA		MN-08	ITASCA	FISH & WILDLIFE
MN82414	EAST LAKE		MN-08	ITASCA	FISH & WILDLIFE
MN82449	WELCH LAKE		MN-08	ITASCA	FISH & WILDLIFE
MN82450	WEST BANKS NO 2			ITASCA	FISH & WILDLIFE
MN82402	BAG LAKE		MN-08	CASS	FISH & WILDLIFE
MN82409	BRUSH LAKE		MN-08	CASS	FISH & WILDLIFE
MN82428	LACROIX NO 1		MN-08	ITASCA	FISH & WILDLIFE
MN82420	GRASS LAKE		MN-08	CASS	FISH & WILDLIFE
MN82452	WOODTICK NO. 2		MN-08	CASS	FISH & WILDLIFE
MN00085	SULLIVAN LAKE		MN-08	LAKE	RECREATION
MN82443	SNAKE BROOK		MN-08	CASS	FISH & WILDLIFE
MN82422	HIGHLAND CREEK		MN-08	CASS	FISH & WILDLIFE
MN82404	BEAR BROOK		MN-08	CASS	FISH & WILDLIFE
MN82403	BALL CLUB IMPOUNDMENT	BALL CLUB	MN-08	ITASCA	FISH & WILDLIFE
MN82429	LACROIX NO 2		MN-08	ITASCA	FISH & WILDLIFE
MN82426	KETCHUM		MN-08	CASS	FISH & WILDLIFE
MN82505	ELEPHANT CREEK	ELEPHANT	MN-08	SAINT LOUIS	FISH & WILDLIFE
MN82453	WOODTICK NO. 3		MN-08	CASS	FISH & WILDLIFE
MN82437	PIGEON RIVER		MN-08	ITASCA	FISH & WILDLIFE
MN82405	BEAVER LODGE		MN-08	ITASCA	FISH & WILDLIFE
MN82441	SIX MILE BROOK		MN-08	CASS	FISH & WILDLIFE
MN00083	DAM FIVE LAKE		MN-08	LAKE	RECREATION
MN82421	HANSON LAKE		MN-08	ITASCA	FISH & WILDLIFE
MN82401	AMIK LAKE		MN-08	ITASCA	FISH & WILDLIFE
MN82439	PINE TREE		MN-08	CASS	FISH & WILDLIFE
MN82419	FLETCHER CREEK		MN-08	ITASCA	FISH & WILDLIFE

MN82424	HOLLAND LAKE		MN-08	ITASCA	FISH & WILDLIFE
MN82444	SPUR LAKE		MN-08	ITASCA	FISH & WILDLIFE
MN82431	LONE WOLF		MN-08	ITASCA	FISH & WILDLIFE
MN82415	EEL LAKE		MN-08	ITASCA	FISH & WILDLIFE
MN00646	PRAIRIE PORTAGE	SUCKER LAKE	MN-08	LAKE	RECREATION
MN82407	BORDER		MN-08	ITASCA	FISH & WILDLIFE
MN82408	BOWSTRING		MN-08	ITASCA	
MN82410	CLOVER LEAF		MN-08	ITASCA	FISH & WILDLIFE
MN82411	CROOKED LAKE		MN-08	ITASCA	FISH & WILDLIFE
MN82413	CUBA		MN-08	CASS	FISH & WILDLIFE
MN82417	EXPERIMENTAL FOREST		MN-08	CASS	FISH & WILDLIFE
MN82418	FISKE LAKE		MN-08	ITASCA	FISH & WILDLIFE
MN82425	JINGO LAKE		MN-08	ITASCA	FISH & WILDLIFE
MN82427	KNUTSON DAM	CASS LAKE		CASS	FISH & WILDLIFE
MN82430	LITTLE WOLF		MN-08	ITASCA	FISH & WILDLIFE
MN82432	LOON LAKE		MN-08	CASS	FISH & WILDLIFE
MN82433	LUCILLE LAKE		MN-08	CASS	FISH & WILDLIFE
MN82440	SHOGREN	SHOGREN DAM	MN-08	ITASCA	FISH & WILDLIFE
MN82446	SUGAR LAKE			CASS	FISH & WILDLIFE
MN82447	UPPER THIRD RIVER		MN-08	ITASCA	FISH & WILDLIFE
Missouri					
MO12099	BLUE SPRINGS DAM	BLUE SPRINGS LAKE	MO-05	JACKSON	FLOOD CONTROL
MO82202	LONGVIEW DAM	LONGVIEW LAKE	MO-05	JACKSON	FLOOD CONTROL
MO30203	CLEARWATER DAM	CLEARWATER LAKE	MO-08	WAYNE	OTHER
MO11176	LONG BRANCH DAM	LONG BRANCH LAKE	MO-09	MACON	FLOOD CONTROL
MO12084	SMITHVILLE DAM	SMITHVILLE LAKE	MO-06	CLAY	FLOOD CONTROL
MO10303	MISSISSIPPI RIVER DAM 20	POOL NO 20	MO-09	LEWIS	NAVIGATION
MO30201	POMME DE TERRE DAM	POMME DE TERRE LAKE	MO-04	HICKORY	FLOOD CONTROL
MO82201	CLARENCE CANNON DAM	MARK TWAIN LAKE	MO-09	RALLS	FLOOD CONTROL

MO10305	MISSISSIPPI RIVER DAM 22	POOL NO 22	MO-09	RALLS	NAVIGATION
MO10304	MISSISSIPPI RIVER DAM 21	POOL NO 12		ADAMS	NAVIGATION
MO10300	LOCK & DAM 24	MISS RIVER	MO-09	PIKE	NAVIGATION
MO10301	LOCK & DAM 25	MISS RIVER	MO-09	LINCOLN	NAVIGATION
MO30204	WAPPAPELLO DAM	WAPPAPELLO LAKE	MO-08	WAYNE	FLOOD CONTROL
MO30200	STOCKTON DAM	STOCKTON LAKE	MO-07	CEDAR	FLOOD CONTROL
MO30202	TABLE ROCK DAM	TABLE ROCK LAKE	MO-07	TANEY	OTHER
MO20725	HARRY S TRUMAN DAM	HARRY S. TRUMAN RESERVOIR	MO-04	BENTON	HYDROELECTRIC
MO10302	LOCK 27	MISS RIVER		ST. LOUIS CITY	NAVIGATION
MO20130	VETERANS DAM NO. 95	VETERANS LAKE	MO-06	JACKSON	DEBRIS CONTROL
MO30976	PENN'S POND DAM	PENN'S POND	MO-04	PULASKI	RECREATION
MO31551	BLOODLAND QUAD NO. 1 DAM	BLOODLAND LAKE	MO-04	PULASKI	RECREATION
MO82901	LOFTON				RECREATION
MO30027	MARKHAM SPRING	MARKHAM SPRINGS	MO-08	WAYNE	RECREATION
MO30210	ROBY LK-EMBANKMENT NO. 1	ROBY LAKE	MO-08	TEXAS	FISH & WILDLIFE
MO30004	MC CORMACK DAM	MC CORMACK LAKE	MO-08	OREGON	RECREATION
MO30206	TIMBERLANE LAKE		MO-08	WASHINGTON	RECREATION
MO40010	BEAVER LAKE		MO-08	BUTLER	RECREATION
MO30002	LOGGERS LAKE		MO-08	SHANNON	RECREATION
MO20101	NOBLETT DAM	NOBLETT LAKE	MO-07	DOUGLAS	RECREATION
MO31558	PINEWOODS LAKE		MO-08	CARTER	RECREATION
MO31227	FOURCHE CREEK DAM	FOURCHE LAKE	MO-08	RIPLEY	RECREATION
MO30069	CRANE LAKE		MO-08	IRON	RECREATION
MO31755	COUNCIL BLUFF DAM	COUNCIL BLUFF LAKE	MO-08	IRON	RECREATION

Mississippi

MS03058	LOCK A (TENN-TOM,AL AND MS)	POOL A	MS-01	MONROE	NAVIGATION
MS03060	LOCK C (TENN-TOM,AL AND MS)	POOL C	MS-01	ITAWAMBA	NAVIGATION
MS82201	LOCK D (TENN-TOM,AL AND MS)	POOL D		ITAWAMBA	NAVIGATION
MS03059	LOCK B (TENN-TOM,AL AND MS)	POOL B	MS-01	MONROE	NAVIGATION

MS03057	ABERDEEN LK/DM (TENN-TOM, AL & MS)	ABERDEEN LAKE	MS-01	MONROE	NAVIGATION
MS01496	ARKABUTLA DAM	ARKABUTLA LAKE	MS-01	DESOTO	FLOOD CONTROL
MS01495	ENID DAM	ENID LAKE	MS-01	YALOBUSHA	FLOOD CONTROL
MS03056	COLUMBUS LOCK AND DAM	COLUMBUS LAKE	MS-03	LOWNDES	NAVIGATION
MS01494	GRENADA DAM	GRENADA LAKE	MS-02	GRENADA	FLOOD CONTROL
MS01493	SARDIS DAM	SARDIS LAKE	MS-01	PANOLA	FLOOD CONTROL
MS03062	LOCK E (TENN-TOM,AL AND MS)	POOL E	MS-01	ITAWAMBA	NAVIGATION
MS01491	OKATIBBEE DAM	OKATIBBEE LAKE	MS-03	LAUDERDALE	FLOOD CONTROL
MS03063	BAY SPRINGS LOCK AND DAM	BAY SPRINGS LAKE	MS-01	TISHOMINGO	NAVIGATION
MS01497	LAKE MARTHA DAM	LAKE MARTHA		LAUDERDALE	RECREATION
MS01498	LAKE HELEN DAM	LAKE HELEN	MS-03	LAUDERDALE	RECREATION
MS02855	LAKE LUCILLE		MS-03	LAUDERDALE	RECREATION
MS10007	ROSS BRANCH		MS-03	WINSTON	FISH & WILDLIFE
MS10006	LOAKFOMA LAKE			WINSTON	FISH & WILDLIFE
MS10001	BLUFF LAKE		MS-03	OKTIBBEHA & NOXUBEE	FISH & WILDLIFE
Montana					
MT00025	FORT PECK DAM	FORT PECK LAKE	MT-01	MCCONE	FLOOD CONTROL
MT00652	LIBBY	LAKE KOOCANUSA	MT-01	LINCOLN	HYDROELECTRIC
MT01463	HELL ROARING	BIG CREEK, HELL ROARING R	MT-01	LAKE	HYDROELECTRIC
MT82901	AGENCY	AGENCY RESERVOIR		CHOUTEAU	IRRIGATION
MT01335	EAST FORK	BEAVER CREEK RESERVOIR, E	MT-01	HILL	FLOOD CONTROL
MT01054	BONNEAU	BONNEAU RESERVOIR		CHOUTEAU	IRRIGATION
MT00597	TWIN LAKE	TURTLE LAKE	MT-01	LAKE	IRRIGATION
MT00602	JOCKO	LOWER JOCKO LAKE, JOCKO L	MT-01	MISSOULA	RECREATION
MT00600	UPPER DRY FORK	UPPER DRY FORK RESERVOIR	MT-01	SANDERS	IRRIGATION
MT00588	TABOR	SAINT MARY'S LAKE	MT-01	LAKE	IRRIGATION
MT00589	MISSION	MISSION LAKE,MISSION RES	MT-01	LAKE	IRRIGATION
MT00593	CROW	LOWER CROW RESERVOIR	MT-01	LAKE	IRRIGATION
MT00601	LOWER DRY FORK	LOWER DRY FORK RES, DRY	MT-01	SANDERS	IRRIGATION

MT00310	LAKE SEVENTEEN			CHOUTEAU	IRRIGATION
MT00599	HUBBART	HUBBERT RESERVOIR	MT-01	FLATHEAD	IRRIGATION
MT00594	KICKING HORSE	KICKING HORSE RESERVOIR	MT-01	LAKE	IRRIGATION
MT00963	WILLOW CREEK	LODGE GRASS RES, WILLOW CK	MT-01	BIG HORN	IRRIGATION
MT00573	LOWER TWO MEDICINE	LOWER TWO MEDICINE LAKE	MT-01	GLACIER	IRRIGATION
MT00591	NINEPIPE	NINEPIPE RESERVOIR	MT-01	LAKE	IRRIGATION
MT00592	PABLO	PABLO RESERVOIR	MT-01	LAKE	IRRIGATION
MT00598	LITTLE BITTERROOT	LITTLE BITTERROOT LAKE	MT-01	FLATHEAD	IRRIGATION
MT00516	GREEN LAKE		MT-01	PONDERA	RECREATION
MT00587	BLACK LAKE	UPPER JOCKO LAKE, BLACK LK		SANDERS	IRRIGATION
MT00590	MCDONALD	MCDONALD LAKE RESERVOIR	MT-01	LAKE	IRRIGATION
MT00595	HORTE		MT-01	LAKE	IRRIGATION
MT00596	HILLSIDE LAKE		MT-01	LAKE	IRRIGATION
MT00603	WEIGLANDS	LITTLE PORCUPINE	MT-01	VALLEY	IRRIGATION
MT03155	FRAZER LAKE DAM EAST		MT-01	VALLEY	IRRIGATION
MT82913	WILLIAMSON			CHOUTEAU	FLOOD CONTROL
MT00567	ANITA	ANITA RES	MT-01	YELLOWSTONE	IRRIGATION
MT00582	YELLOWTAIL AFTERBAY	YELLOWTAIL AFTERBAY RES	MT-01	BIG HORN	HYDROELECTRIC
MT00583	DODSON DIVERSION	DODSON RES	MT-01	PHILLIPS	IRRIGATION
MT00585	SUN RIVER DIVERSION	DIVERSION LAKE	MT-01	TETON, LEWIS AND CLARK	IRRIGATION
MT00743	HELENA VALLEY	HELENA VALLEY RES	MT-01	LEWIS AND CLARK	IRRIGATION
MT00571	GIBSON	GIBSON RES, BEAVER CREEK	MT-01	TETON, LEWIS AND CLARK	IRRIGATION
MT00577	WILLOW CREEK	WILLOW CREEK RES	MT-01	LEWIS AND CLARK	IRRIGATION
MT00575	PISHKUN DIKE 1	PSHKUN RES	MT-01	TETON	IRRIGATION
MT00572	LAKE SHERBURNE		MT-01	GLACIER	IRRIGATION
MT00574	NELSON DIKE DA	NELSON RES	MT-01	PHILLIPS	IRRIGATION
MT00569	CLARK CANYON	CLARK CANYON RES	MT-01	BEAVERHEAD	IRRIGATION
MT00570	FRESNO	FRESNO RES	MT-01	HALL	IRRIGATION
MT00576	YELLOWTAIL	BIGHORN LAKE	MT-01	BIG HORN	IRRIGATION
MT00579	TIBER	TIBER RES	MT-01	LIBERTY	IRRIGATION

MT00568	CANYON FERRY	CANYON FERRY LAKE	MT-01	LEWIS AND CLARK	HYDROELECTRIC
MT00586	PARADISE DIVERSION	PARADISE DIVERSION RES	MT-01	BLAINE	IRRIGATION
MT00565	HUNGRY HORSE	HUNGRY HORSE RES	MT-01	FLATHEAD	IRRIGATION
MT10021	BEAVER POND		MT-01	SHERIDAN	FISH & WILDLIFE
MT10024	MACDONALD POND		MT-01	BEAVERHEAD	FISH & WILDLIFE
MT03425	JESSUP MILL POND		MT-01	FLATHEAD	FLOOD CONTROL
MT10025	SPARROW POND		MT-01	BEAVERHEAD	FISH & WILDLIFE
MT10026	SPARROW SLOUGH		MT-01	BEAVERHEAD	FISH & WILDLIFE
MT03695	CULVER SPRINGS		MT-01	BEAVERHEAD	FISH & WILDLIFE
MT00643	LAMESTEER		MT-01	WIBAUX	FISH & WILDLIFE
MT00647	WIDGEON POND		MT-01	BEAVERHEAD	FISH & WILDLIFE
MT00627	BLACK COULEE		MT-01	BLAINE	FISH & WILDLIFE
MT10023	MCLAREN		MT-01	BLAINE	FISH & WILDLIFE
MT00283	LAKE THIBADEAU		MT-01	HILL	FISH & WILDLIFE
MT00642	CREEDMAN COULEE		MT-01	HILL	FISH & WILDLIFE
MT03099	MEDICINE LAKE #12		MT-01	SHERIDAN	FISH & WILDLIFE
MT10005	HEWITT		MT-01	PHILLIPS	FISH & WILDLIFE
MT00626	HAILSTONE		MT-01	STILLWATER	FISH & WILDLIFE
MT03473	HOMESTEAD			SHERIDAN	FISH & WILDLIFE
MT00645	MEDICINE LAKE #4		MT-01	SHERIDAN	FISH & WILDLIFE
MT82917	THREE BEARS LAKE - WEST				WATER SUPPLY
MT82918	THREE DAM LAKE - EAST				FISH & WILDLIFE
MT01469	LOWER LAKE #2		MT-01	MISSOULA	IRRIGATION
MT00851	FISH LAKE		MT-01	RAVALLI	RECREATION
MT00874	GOLD LAKE		MT-01	GRANITE	FISH & WILDLIFE
MT00875	MUD LAKE			GRANITE	IRRIGATION
MT00882	EARTHQUAKE LAKE DAM		MT-01	MADISON	RECREATION
MT00895	WOOD LAKE DAM		MT-01	LEWIS AND CLARK	RECREATION
MT01571	LION LAKE DAM		MT-01	FLATHEAD	RECREATION
MT03449	MANEY		MT-01	JEFFERSON	RECREATION

MT03808	STONY LAKE		MT-01	SANDERS	RECREATION
North Carolina					
NC00206	WILLIAM O. HUSKE LOCK & DAM		NC-07	BLADEN	NAVIGATION
NC00205	LOCK AND DAM #2		NC-01	BLADEN	NAVIGATION
NC00182	LOCK AND DAM #1		NC-01	BLADEN	NAVIGATION
NC01713	FALLS LAKE DAM NC	FALLS LAKE	NC-04	WAKE	WATER SUPPLY
NC00173	B. EVERETT JORDAN DAM	B. EVERETT JORDAN LAKE	NC-04	CHATHAM	WATER SUPPLY
NC00300	W. KERR SCOTT DAM	W. KERR SCOTT RESERVOIR	NC-10	WILKES	WATER SUPPLY
NC00025	KIEST LAKE DAM	KIEST LAKE		CUMBERLAND	RECREATION
NC00029	MCKELLARS LAKE DAM (LOWER)	LOWER MCKELLARS POND	NC-07	CUMBERLAND	RECREATION
NC00030	MCKELLARS LAKE DAM (UPPER)	UPPER MCKELLARS POND	NC-07	CUMBERLAND	RECREATION
NC00031	MCFAYDEN LAKE DAM	MCFAYDEN POND	NC-07	CUMBERLAND	RECREATION
NC00032	HUTAFF LAKE DAM	HUTAFF LAKE	NC-07	CUMBERLAND	RECREATION
NC00039	MOTT LAKE DAM	MOTT LAKE	NC-08	HOKE	RECREATION
NC00044	MCARTHUR LAKE DAM	LAKE MCARTHUR	NC-08	HOKE	RECREATION
NC00045	HOLLAND LAKE DAM	HOLLAND LAKE		HOKE	RECREATION
NC00046	MCKIETHAN LAKE DAM	MCKIETHAN POND	NC-08	HOKE	RECREATION
NC00058	BIG MUDDY LAKE DAM	BIG MUDDY LAKE	NC-08	SCOTLAND	RECREATION
NC00059	LITTLE MUDDY LAKE DAM	LITTLE MUDDY LAKE	NC-08	SCOTLAND	RECREATION
NC01127	SIMMONS FIELDS LAKE DAM	SIMMONS FIELD LAKE	NC-07	CUMBERLAND	RECREATION
NC01128	TEXAS POND DAM	TEXAS LAKE	NC-07	CUMBERLAND	RECREATION
NC01129	SMITH LAKE DAM	SMITH LAKE	NC-07	CUMBERLAND	RECREATION
NC82301	BOUNDARY LINE LAKE DAM	BOUNDARY LINE LAKE	NC-07	CUMBERLAND	RECREATION
NC82302	WYATT LAKE DAM	WYATT LAKE	NC-07	CUMBERLAND	RECREATION
NC82303	ANDREWS CHURCH LAKE DAM	ANDREWS CHURCH LAKE	NC-07	CUMBERLAND	RECREATION
NC82307	LAKE LINDSAY			HARNETT	RECREATION
NC10011	ARROWHEAD		NC-08	ANSON	FISH & WILDLIFE
NC00651	MCKINNEY		NC-08	RICHMOND	FLOOD CONTROL
NC00251	CONE (BASS) LAKE	(BASS)	NC-05	WATAUGA	TAILINGS

NC00253	TROUT LAKE		NC-05	WATAUGA	TAILINGS
NC00254	PRICE LAKE			WATAUGA	TAILINGS
NC01722	SILT POND		NC-05	WATAUGA	
NC01723	SIMS POND		NC-05	WATAUGA	RECREATION
NC01724	ASH BEAR PEN		NC-05	WATAUGA	OTHER
NC01726	FRONT LAKE		NC-11	HENDERSON	TAILINGS
NC00181	APALACHIA	APALACHIA LAKE	NC-11	CHEROKEE	HYDROELECTRIC
NC00419	HIWASSEE	HIWASSEE LAKE	NC-11	CHEROKEE	FLOOD CONTROL
NC00391	CHATUGE	CHATUGE LAKE	NC-11	CLAY	FLOOD CONTROL
NC00298	FONTANA	FONTANA LAKE		SWAIN; GRAHAM	FLOOD CONTROL
North Dakota					
ND00310	HOMME DAM	HOMME RESERVOIR	ND-01	WALSH	FLOOD CONTROL
ND00146	PIPESTEM DAM	PIPESTEM LAKE	ND-01	STUTSMAN	FLOOD CONTROL
ND00147	BOWMAN HALEY	BOWMAN-HALEY LAKE	ND-01	BOWMAN	FLOOD CONTROL
ND00309	BALDHILL	LAKE ASHTABULA	ND-01	BARNES	FLOOD CONTROL
ND00145	GARRISON DAM	LAKE SAKAKAWEA		MCLEAN	FLOOD CONTROL
ND82901	BELCOURT LAKE	LITTLE SHELF			RECREATION
ND82902	PRAIRIE #1	SITTING BULL	ND-01	SIOUX	
ND00148	DICKINSON	EDWARD ARTHUR PATTERSON L	ND-01	STARK	IRRIGATION
ND00149	HEART BUTTE	LAKE TSCHIDA	ND-01	GRANT	IRRIGATION
ND00151	JAMESTOWN	JAMESTOWN RES	ND-01	STUTSMAN	IRRIGATION
ND00364	SPRINGWATER		ND-01	EMMONS	FISH & WILDLIFE
ND00336	SUNBURST		ND-01	EMMONS	FISH & WILDLIFE
ND00357	BONE HILL		ND-01	LAMOURE	FISH & WILDLIFE
ND00345	LITTLE GOOSE		ND-01	GRAND FORKS	FISH & WILDLIFE
ND00367	WOOD LAKE MARSH		ND-01	BENSON	FISH & WILDLIFE
ND00315	DES LACS #3		ND-01	WARD	FISH & WILDLIFE
ND00356	TOMAHAWK		ND-01	BARNES	FISH & WILDLIFE
ND00346	LAKE SUSIE		ND-01	MCLEAN	FISH & WILDLIFE

ND00339	APPERT		ND-01	EMMONS	FISH & WILDLIFE
ND00401	RIVER POOL		ND-01	SARGENT	FISH & WILDLIFE
ND00324	DES LACS #8		ND-01	WARD	FISH & WILDLIFE
ND00313	DES LACS #5		ND-01	WARD	FISH & WILDLIFE
ND00400	MAKA POOL		ND-01	SARGENT	FISH & WILDLIFE
ND00350	PRETTY ROCK		ND-01	GRANT	FISH & WILDLIFE
ND00349	STEWART		ND-01	SLOPE	FISH & WILDLIFE
ND00353	MAPLE RIVER		ND-01	DICKEY	FISH & WILDLIFE
ND00335	SNYDER LAKE		ND-01	TOWNER	FISH & WILDLIFE
ND00363	STRAWBERRY LAKE		ND-01	MCLEAN	FISH & WILDLIFE
ND00319	DEPUY		ND-01	STUTSMAN	FISH & WILDLIFE
ND00330	UPPER SOURIS #87		ND-01	WARD	FISH & WILDLIFE
ND00331	UPPER SOURIS #96		ND-01	WARD	FISH & WILDLIFE
ND00314	DES LACS #4		ND-01	WARD	FISH & WILDLIFE
ND00337	ARDOCH		ND-01	WALSH	FISH & WILDLIFE
ND00321	LAKE ILO			DUNN	FISH & WILDLIFE
ND00326	J. CLARK SALYER #341		ND-01	BOTTINEAU	FISH & WILDLIFE
ND00329	J. CLARK SALYER #320		ND-01	MCHENRY	FISH & WILDLIFE
ND00327	J. CLARK SALYER #332		ND-01	BOTTINEAU	FISH & WILDLIFE
ND00316	DES LACS #2		ND-01	WARD	FISH & WILDLIFE
ND00325	J. CLARK SALYER #357			BOTTINEAU	FISH & WILDLIFE
ND00328	J. CLARK SALYER #326		ND-01	MCHENRY	FISH & WILDLIFE
ND00332	LAKE DARLING	DAM NO. 83	ND-01	WARD	FISH & WILDLIFE
ND00317	NORTH BAY		ND-01	SARGENT	FISH & WILDLIFE
ND00399	CUTLER		ND-01	SARGENT	FISH & WILDLIFE
ND00153	SATHER DAM		ND-01	MCKENZIE	RECREATION
ND82402	SCHATZ		ND-01	SLOPE	RECREATION
Nebraska					
NE01061	HOLMES LAKE-SITE 17	HOLMES LAKE	NE-01	LANCASTER	FLOOD CONTROL

NE01065	PAPILLION CREEK & TRIB. SITE 16	STANDING BEAR LAKE	NE-02	DOUGLAS	FLOOD CONTROL
NE01062	OLIVE CREEK DAM-SITE 2	OLIVE CREEK LAKE	NE-01	LANCASTER	FLOOD CONTROL
NE01059	STAGECOACH DAM-SITE 9	STAGECOACH LAKE	NE-01	LANCASTER	FLOOD CONTROL
NE01055	CONESTOGA DAM-SITE 12	CONESTOGA LAKE	NE-01	LANCASTER	FLOOD CONTROL
NE82201	PAPILLION CREEK & TRIB. SITE 20	WEHRSPAN LAKE	NE-02	SARPY	FLOOD CONTROL
NE82202	PAPILLION CREEK & TRIB. SITE 18	LAKE SITE 18	NE-02	DOUGLAS	FLOOD CONTROL
NE01060	TWIN LAKES DAM-SITE 13	TWIN LAKES	NE-01	SEWARD	FLOOD CONTROL
NE01058	YANKEE HILL DAM-SITE 10	YANKEE HILL LAKE	NE-01	LANCASTER	FLOOD CONTROL
NE01056	WAGON TRAIN DAM-SITE 8	WAGON TRAIN LAKE	NE-01	LANCASTER	FLOOD CONTROL
NE01064	BLUESTEM DAM-SITE 4	BLUESTEM LAKE	NE-01	LANCASTER	FLOOD CONTROL
NE01518	PAPILLION CREEK SITE 11	GLENN CUNNINGHAM LAKE	NE-02	DOUGLAS	FLOOD CONTROL
NE01057	PAWNEE DAM-SITE 14	PAWNEE LAKE	NE-01	LANCASTER	FLOOD CONTROL
NE01063	BRANCHED OAK DAM-SITE 18	BRANCHED OAK LAKE	NE-01	LANCASTER	FLOOD CONTROL
NE01066	HARLAN COUNTY DAM	HARLAN COUNTY LAKE	NE-03	HARLAN	FLOOD CONTROL
NE82903	LAKE ALICE NO. 2	LITTLE LAKE ALICE	NE-03	SCOTTS BLUFF	IRRIGATION
NE01071	LAKE ALICE NO. 1	LAKE ALICE, LOWER DAM	NE-03	SCOTTS BLUFF	IRRIGATION
NE82901	DAVIS CREEK	DAVIS CREEK RES	NE-03	GREELY	IRRIGATION
NE01069	BOX BUTTE	BOX BUTTE RES	NE-03	DAWES	IRRIGATION
NE01075	MINATARE	LAKE MINTARE, LAKE ALICE NO. 3	NE-03	SCOTTS BLUFF	IRRIGATION
NE01070	ENDERS	ENDERS RES	NE-03	CHASE	IRRIGATION
NE01074	MERRITT	MERRITT RES	NE-03	CHERRY	IRRIGATION
NE01077	SHERMAN	SHERMAN RES	NE-03	SHERMAN	IRRIGATION
NE01076	RED WILLOW	HUGH BUTLER LAKE	NE-03	FRONTIER	IRRIGATION
NE01073	MEDICINE CREEK	HARRY STRUNK LAKE	NE-03	FRONTIER	IRRIGATION
NE01078	TRENTON	SWANSON LAKE	NE-03	HITCHCOCK	IRRIGATION
NE01067	ARCADIA DIVERSION		NE-03	CUSTER	IRRIGATION
NE01068	MILBURN DIVERSION		NE-03	BLAINE	IRRIGATION
NE82904	VIRGINIA SMITH	CALAMUS	NE-03	GARFIELD	IRRIGATION
NE01116	CARBODY		NE-03	SIOUX	IRRIGATION
NE01127	NORMAN			SIOUX	IRRIGATION

New Hampshire

NH00002	EVERETT DAM	EVERETT LAKE	NH-02	HILLSBOROUGH	FLOOD CONTROL
NH00006	OTTER BROOK DAM	OTTER BROOK LAKE	NH-02	CHESHIRE	FLOOD CONTROL
NH00005	EDWARD MACDOWELL DAM	EDWARD MACDOWELL LAKE	NH-02	HILLSBOROUGH	FLOOD CONTROL
NH00004	HOPKINTON DAM	HOPKINTON LAKE	NH-02	MERRIMACK	FLOOD CONTROL
NH00007	SURRY MOUNTAIN DAM	SURRY MOUNTAIN LAKE	NH-02	CHESHIRE	FLOOD CONTROL
NH00537	PEVERLY BROOK UPPER DAM	PEVERLY BROOK UPPER POND	NH-01	ROCKINGHAM	RECREATION
NH00538	PEVERLY BROOK LOWER DAM	PEVERLY BROOK LOWER POND	NH-01	ROCKINGHAM	RECREATION
NH00566	BLOW-ME-DOWN POND			SULLIVAN	WATER SUPPLY
NH00266	LONG POND DAM	LONG POND	NH-02	GRAFTON	RECREATION

New Jersey

NJ00457	AMPHIBIOUS LAKE DAM	AMPHIBIOUS LAKE	NJ-03	BURLINGTON	RECREATION
NJ00459	HANOVER LAKE DAM	HANOVER LAKE	NJ-03	BURLINGTON	RECREATION
NJ82301	LAKE DENMARK DAM	LAKE DENMARK	NJ-11	MORRIS	OTHER
NJ82302	PICATINNY LAKE DAM	PICATINNY LAKE	NJ-11	MORRIS	OTHER
NJ82303	DOGWOOD POND DAM	DOGWOOD POND	NJ-03	BURLINGTON	RECREATION
NJ82304	BRINDLE LAKE DAM	BRINDLE LAKE	NJ-04	OCEAN	RECREATION
NJ82305	WILLOW POND DAM	WILLOW POND	NJ-03	BURLINGTON	RECREATION
NJ82306	HIPPS FOLLEY DAM	HIPPS FOLLEY	NJ-03	BURLINGTON	RECREATION
NJ82307	LAKE OF THE WOODS DAM	LAKE OF THE WOODS	NJ-03	BURLINGTON	RECREATION
NJ00734	NJ NO NAME NO.1	BASS LAKE	NJ-04	OCEAN	RECREATION
NJ00735	NJ NO NAME NO.2	CLUB HOUSE LAKE	NJ-04	OCEAN	RECREATION
NJ00283	LONG PINE		NJ-05	SUSSEX	RECREATION
NJ00530	UPPER BLUE MOUNTAIN LAKE		NJ-05	SUSSEX	RECREATION
NJ00531	LOWER B.0LUE MOUNTAIN LAKE		NJ-05	SUSSEX	RECREATION
NJ00829	LAKE SUCCESS		NJ-05	SUSSEX	TAILINGS
NJ00830	HEMLOCK LAKE		NJ-05	SUSSEX	RECREATION
NJ00831	WATERGATE LAKE			SUSSEX	RECREATION

NJ10000 CHADO

FISH & WILDLIFE

New Mexico

NM00002	GALISTEO DAM	GALISTEO RESERVOIR	NM-03	SANTA FE	OTHER
NM00004	TWO RIVERS DAM (DIAMOND A & ROCKY)	TWO RIVER RESERVOIR	NM-02	CHAVES	OTHER
NM00404	COCHITI	COCHITI LAKE	NM-03	SANDOVAL	OTHER
NM00003	JEMEZ CANYON DAM	JEMEZ CANYON RESERVOIR		BERNALILLO	OTHER
NM00006	CONCHAS DAM	CONCHAS LAKE	NM-03	SAN MIGUEL	OTHER
NM00001	ABIQUIU DAM	ABIQUIU RESERVOIR	NM-03	RIO ARRIBA	OTHER
NM00158	SANTA ROSA DAM	SANTA ROSA LAKE	NM-02	GUADALUPE	OTHER
NM00299	DOE LOS ALAMOS CANYON DAM	LOS ALAMOS RANCH SCHOOL NO.1 DAM	NM-03	LOS ALAMOS	WATER SUPPLY
NM82932	PIN DEE				IRRIGATION
NM82905	PAGUATE NORTH	PAGUATE RESERVOIR 1	NM-02	CIBOLA	IRRIGATION
NM82906	PAGUATE SOUTH	PAGUATE RESERVOIR 2	NM-02	CIBOLA	IRRIGATION
NM00149	EUSTACE	EUSTACE RESERVOIR	NM-03	MCKINLEY	RECREATION
NM82923	SEAMA	SEAMA RESERVOIR		CIABOLA	IRRIGATION
NM82929	BOLTON	BOLTON RESERVOIR			IRRIGATION
NM00285	ASAAYI	ASAAYI RESERVOIR	NM-03	MCKINLEY	RECREATION
NM00190	LOWER MUNDO	LOWER MUNDO RESERVOIR	NM-03	RIO ARRIBA	RECREATION
NM00186	DULCE LAKE		NM-03	RIO ARRIBA	IRRIGATION
NM00143	NUTRIA NO. 4			VALENCIA	IRRIGATION
NM00188	LA JARA	LA JARA LAKE	NM-03	RIO ARRIBA	RECREATION
NM00121	CUTTER	CUTTER RESERVOIR	NM-03	SAN JUAN	IRRIGATION
NM00283	CHUSKA		NM-03	MCKINLEY	RECREATION
NM00144	PESCADO			VALENCIA	IRRIGATION
NM00288	CAPTAIN TOM	CAPTAIN TOM RESERVOIR	NM-03	SAN JUAN	IRRIGATION
NM00142	NUTRIA NO. 3			VALENCIA	IRRIGATION
NM00141	NUTRIA NO. 2			VALENCIA	IRRIGATION
NM00151	RED LAKE		NM-03	MCKINLEY	IRRIGATION
NM00145	BLACK ROCK	BLACK ROCK RESERVOIR	NM-03	MCKINLEY	IRRIGATION

NM00147	OJO CALIENTE LAKE		VALENCIA	IRRIGATION
NM00148	TEKAPO		NM-03 MCKINLEY	IRRIGATION
NM00153	ACOMITA	ACOMITA RESERVOIR	VALENCIA	IRRIGATION
NM00159	ZIA	ZIA STORAGE RESERVOIR	SANDOVAL	IRRIGATION
NM00160	SILVER SPRINGS		NM-02 OTERO	FLOOD CONTROL
NM00161	LAKE MESCALERO	CIENEGITA RESERVOIR	NM-02 OTERO	RECREATION
NM00162	PINE TREE CANYON 1		NM-02 OTERO	OTHER
NM00163	PINE TREE CANYON 2		NM-02 OTERO	OTHER
NM00164	PINE TREE CANYON 6		NM-02 OTERO	OTHER
NM00165	PINE TREE CANYON 7		NM-02 OTERO	OTHER
NM00166	NOGAL DAM NO. 2		NM-02 OTERO	OTHER
NM00168	COOLEY CANYON NO. 2		NM-02 OTERO	OTHER
NM00169	WHITETAIL DAM NO. 5		NM-02 OTERO	OTHER
NM00170	WHITETAIL DAM NO. 6		NM-02 OTERO	OTHER
NM00187	HAYDEN LAKE		NM-03 RIO ARRIBA	RECREATION
NM00191	JOHN MILLS LAKE		NM-03 RIO ARRIBA	IRRIGATION
NM00192	ENBOM LAKE		NM-03 RIO ARRIBA	RECREATION
NM00244	STONE LAKE		NM-03 RIO ARRIBA	RECREATION
NM00330	JUANS VICENTE LAKE		NM-03 SAN JUAN	IRRIGATION
NM00384	PRESSLEY JACOBS		NM-03 MCKINLEY	FLOOD CONTROL
NM00391	WHISKEY LAKE T20N		NM-03 MCKINLEY	FLOOD CONTROL
NM82930	TRAPPED ROCK			FLOOD CONTROL
NM82931	OAK WASH			FLOOD CONTROL
NM00034	ENCINO DETENTION DAM NO.49		NM-03 SANDOVAL	FLOOD CONTROL
NM00011	PICACHO SOUTH		NM-02 DONA ANA	FLOOD CONTROL
NM00010	LUCERO DIKE	LUCERO ARROYO DIKE	NM-02 DONA ANA	FLOOD CONTROL
NM00012	PICACHO NORTH		NM-02 DONA ANA	FLOOD CONTROL
NM00412	NAMBE FALLS	NAMBE FALLS RES	NM-03 SANTA FE	IRRIGATION
NM00125	DAM NO. 13	RESERVOIR NO. 13	NM-03 COLFAX	IRRIGATION
NM00126	DAM NO. 2	RESERVOIR NO. 2, LAGUNA M	NM-03 COLFAX	IRRIGATION

NM00124	STUBBLEFIELD	STUBBLEFIELD RES	NM-03	COLFAX	IRRIGATION
NM00132	AVALON	LAKE AVALON	NM-02	EDDY	IRRIGATION
NM10008	EL VADO	EL VADO RES	NM-03	RIO ARRIBA	IRRIGATION
NM00129	ELEPHANT BUTTE	ELEPHANT BUTTE RES, ENGLE	NM-02	SIERRA	FLOOD CONTROL
NM00122	HERON	HERON RES	NM-03	RIO ARRIBA	WATER SUPPLY
NM00130	SUMNER	SUMNER LAKE, ALAMOGORGO RES	NM-02	DEBACA	IRRIGATION
NM82901	BRANTLEY	BRANTLEY RES	NM-02	EDDY	FLOOD CONTROL
NM00131	CABALLO	CABALLO RES	NM-02	SIERRA	IRRIGATION
NM00120	NAVAJO	NAVAJO RES		SAN JUAN, RIO ARRIBA	IRRIGATION
NM82401	SHUREE LAKE			TAOS	RECREATION
Nevada					
NV10001	PINE CANYON DAM	PINE CANYON RESERVOIR	NV-02	LINCOLN	FLOOD CONTROL
NV10002	MATHEWS CANYON DAM	MATHEWS CANYON RESERVOIR	NV-02	LINCOLN	FLOOD CONTROL
NV10101	CAT CREEK DAM	CAT CREEK RESERVOIR	NV-02	MINERAL	WATER SUPPLY
NV10102	ROSE CREEK	ROSE CREEK RESERVOIR		MINERAL	WATER SUPPLY
NV10103	BLACK BEAUTY	BLACK BEAUTY RESERVOIR		MINERAL	WATER SUPPLY
NV10132	WEBER	WEBER RESERVOIR	NV-02	MINERAL	IRRIGATION
NV10119	WILD HORSE	WILD HORSE RESERVOIR	NV-02	ELKO	IRRIGATION
NV10128	GOSHUTE		NV-02	WHITE PINE	IRRIGATION
NV10135	SHEEP CREEK		NV-02	ELKO	WATER SUPPLY
NV10124	RYE PATCH	RYE PATCH RES	NV-02	PERSHING	IRRIGATION
NV10123	LAHONTAN	LAHONTAN RES	NV-02	CHURCHILL	IRRIGATION
NV10122	HOOVER	LAKE MEAD		CLARK, NV; MOHAVE, AZ	WATER SUPPLY
NV00214	SHECKLER	SHECKLER RES	NV-02	CHURCHILL	IRRIGATION
NV10127	CATNIP		NV-02	WASHOE	FISH & WILDLIFE
NV20143	CRYSTAL SPRINGS		NV-02	NYE	IRRIGATION
NV10125	UPPER PAHRANAGAT		NV-02	LINCOLN	FISH & WILDLIFE
NV10130	SWAN LAKE		NV-02	WASHOE	FISH & WILDLIFE
NV10134	HONEYBEE			CLARK	RECREATION

NV10136	ICE PLANT NO. 1			WHITE PINE	FLOOD CONTROL
NV82901	KATHERINE AREA BORROW PIT				OTHER
NV82903	OVERTON BEACH DIKE				FLOOD CONTROL
New York					
NY01212	ALMOND DAM	ALMOND LAKE	NY-31	STEUBEN	FLOOD CONTROL
NY01211	EAST SIDNEY DAM	EAST SIDNEY LAKE		OTSEGO	FLOOD CONTROL
NY00951	TROY LOCK & DAM #1	HUDSON RIVER	NY-21	RENSSELAER	NAVIGATION
NY82201	MT. MORRIS DAM	MT. MORRIS RESERVOIR	NY-27	LIVINGSTON	FLOOD CONTROL
NY01055	WHITNEY POINT DAM	WHITNEY POINT LAKE		BROOME	FLOOD CONTROL
NY00594	LUSK RESERVIOR DAM	LUSK RESERVIOR		ORANGE	WATER SUPPLY
NY00766	WEYANTS POND DAM	WEYANTS POND		ORANGE	WATER SUPPLY
NY00767	MINE LAKE DAM	MINE LAKE		ORANGE	WATER SUPPLY
NY00768	POPOLOPEN LAKE DAM	POPOLOPEN LAKE		ORANGE	WATER SUPPLY
NY00769	LAKE FREDERICK DAM	LAKE FREDERICK		ORANGE	WATER SUPPLY
NY00770	STILLWELL DAM	STILLWELL LAKE		ORANGE	WATER SUPPLY
NY82301	REMINGTON POND				
NY00370	IROQUOIS WILDLIFE REFUGE 5		NY-29	ORLEANS	OTHER
NY00380	LONG MARSH		NY-27	GENESEE	OTHER
NY00381	IROQUOIS NAT REFUGE 3		NY-27	GENESEE	OTHER
NY00372	IROQUOIS NAT REFUGE 6		NY-29	ORLEANS	OTHER
NY00379	IROQUOIS NAT REFUGE 7		NY-29	ORLEANS	OTHER
NY10009	IROQUOIS DAM 5		NY-29	ORLEANS	FISH & WILDLIFE
NY00871	NUCLEAR LAKE				RECREATION
NY01397	LOWER	(HIS. HS-13)	NY-19	DUTCHESS	
NY82901	UN-NAMED				
Ohio					
OH00009	NORTH BRANCH OF KOKOSING DAM	NORTH BRANCH OF KOKOSING L	OH-04	KNOX	FLOOD CONTROL
OH00029	WEST FORK OF MILL CREEK LAKE DAM	WEST FORK OF MILL CREEK L	OH-01	HAMILTON	FLOOD CONTROL

OH00003	DOVER DAM		OH-18	TUSCARAWAS	FLOOD CONTROL
OH00005	BEACH CITY DAM	BEACH CITY LAKE	OH-18	TUSCARAWAS	FLOOD CONTROL
OH00018	TOM JENKINS DAM	BURR OAK LAKE	OH-06	ATHENS	FLOOD CONTROL
OH00002	WILLS CREEK DAM	WILLS CREEK LAKE		MUSKINGUM AND COSHOCTON	FLOOD CONTROL
OH00014	LEESVILLE DAM	LEESVILLE LAKE	OH-18	CARROLL	FLOOD CONTROL
OH00017	PAINT CREEK DAM	PAINT CREEK LAKE		HIGHLAND AND ROSS	FLOOD CONTROL
OH00008	DEER CREEK DAM	DEER CREEK LAKE	OH-07	PICKAWAY	FLOOD CONTROL
OH00015	DELAWARE DAM	DELAWARE LAKE	OH-12	DELAWARE	FLOOD CONTROL
OH00020	CHARLES MILL DAM	CHARLES MILL LAKE	OH-16	ASHLAND	FLOOD CONTROL
OH00006	ATWOOD DAM	ATWOOD LAKE	OH-18	TUSCARAWAS	FLOOD CONTROL
OH00007	DILLON DAM	DILLON LAKE	OH-18	MUSKINGUM	FLOOD CONTROL
OH00012	CLENDENING DAM	CLENDENING LAKE	OH-18	HARRISON	FLOOD CONTROL
OH00028	CLARENCE J BROWN DAM	CLARENCE J BROWN RESERVOIR	OH-07	CLARK	FLOOD CONTROL
OH00929	WILLIAM H. HARSHA LAKE DAM	WILLIAM H. HARSHA LAKE	OH-02	CLERMONT	FLOOD CONTROL
OH00011	PIEDMONT DAM	PIEDMONT LAKE	OH-18	HARRISON	FLOOD CONTROL
OH00010	TAPPAN DAM	TAPPAN LAKE	OH-18	HARRISON	FLOOD CONTROL
OH00001	PLEASANT HILL DAM	PLEASANT HILL LAKE	OH-16	ASHLAND	FLOOD CONTROL
OH00030	MICHAEL J KIRWAN DAM AND RESERVOIR	MICHAEL J KIRWAN RESERVOIR	OH-13	PORTAGE	FLOOD CONTROL
OH00927	CAESAR CREEK LAKE DAM	CAESAR CREEK LAKE		WARREN	FLOOD CONTROL
OH00931	ALUM CREEK DAM	ALUM CREEK LAKE	OH-12	DELAWARE	FLOOD CONTROL
OH00013	SENECAVILLE DAM	SENECAVILLE LAKE	OH-18	GUERNSEY	FLOOD CONTROL
OH00032	BERLIN DAM	BERLIN LAKE		PORTAGE	FLOOD CONTROL
OH00031	MOSQUITO CREEK DAM	MOSQUITO CREEK LAKE	OH-17	TRUMBULL	FLOOD CONTROL
OH03032	CPT. ANTHONY MELDAHL LOCK & DAM			CLERMONT	RECREATION
OH00490	VIRGINIA KENDALL	(TRACT # 119-53)			RECREATION
OH82915	ARMINGTON NO. 1				TAILINGS
OH82401	INDIAN MOUND		OH-18	MONROE	RECREATION
OH82420	KENTON LAKE			LAWRENCE	RECREATION
OH82421	TIMBER RIDGE DAM		OH-06	LAWRENCE	RECREATION
OH82424	VESUVIUS	LAKE VESUVIUS	OH-06	LAWRENCE	RECREATION

Oklahoma					
OK10313	HEYBURN	HEYBURN LAKE	OK-02	CREEK	FLOOD CONTROL
OK20508	BIRCH	BIRCH LAKE	OK-02	OSAGE	FLOOD CONTROL
OK10302	NEWT GRAHAM LOCK AND DAM 18	LOCK AND DAM 18	OK-02	WAGONER	NAVIGATION
OK10305	W.D.MAYO LOCK AND DAM 14			LE FLORE	NAVIGATION
OK00035	ARCADIA LAKE, OK	ARCADIA LAKE	OK-05	OKLAHOMA	FLOOD CONTROL
OK10318	FORT SUPPLY		OK-06	WOODWARD	FLOOD CONTROL
OK10303	CHOUTEAU LOCK AND DAM 17		OK-02	WAGONER	NAVIGATION
OK10306	PINE CREEK	PINE CREEK LAKE	OK-03	MCCURTAIN	FLOOD CONTROL
OK10312	HULAH LAKE		OK-05	OSAGE	FLOOD CONTROL
OK10315	WISTER		OK-03	LE FLORE	FLOOD CONTROL
OK21489	COPAN LAKE, OK	COPAN LAKE	OK-05	WASHINGTON	FLOOD CONTROL
OK20510	OPTIMA	OPTIMA LAKE	OK-06	TEXAS	FLOOD CONTROL
OK10319	GREAT SALT PLAINS		OK-06	ALFALFA	FLOOD CONTROL
OK20506	WAURIKA	WAURIKA LAKE	OK-04	JEFFERSON	FLOOD CONTROL
OK00037	SKIATOOK LAKE, OK	SKIATOOK LAKE	OK-02	OSAGE	FLOOD CONTROL
OK10304	WEBBERS FALLS LOCK AND DAM 16		OK-02	MUSKOGEE	HYDROELECTRIC
OK10311	TENKILLER	TENKILLER LAKE		CHEROKEE	FLOOD CONTROL
OK10300	HUGO	HUGO LAKE	OK-03	CHOCTAW	FLOOD CONTROL
OK21490	SARDIS LAKE, OK	SARDIS LAKE	OK-03	PUSHMATAHA	FLOOD CONTROL
OK10316	CANTON	CANTON LAKE	OK-06	BLAINE	FLOOD CONTROL
OK20509	KAW	KAW LAKE	OK-05	KAY	FLOOD CONTROL
OK10314	FORT GIBSON			WAGONER	HYDROELECTRIC
OK10309	KEYSTONE LAKE		OK-01	TULSA	FLOOD CONTROL
OK10310	OOLOGAH	OOLOGAH LAKE	OK-02	ROGERS	FLOOD CONTROL
OK10301	ROBERT S.KERR LOCK AND DAM 15			SEQUOYAH	NAVIGATION
OK10308	EUFAULA			MCINTOSH	FLOOD CONTROL
OK10307	BROKEN BOW	BROKEN BOW LAKE	OK-03	MCCURTAIN	FLOOD CONTROL
OK10317	DENISON DAM	LAKE TEXOMA	OK-03	BRYAN	FLOOD CONTROL

OK20503	LAKE GEORGE		OK-04	COMANCHE	RECREATION
OK20504	KETCH LAKE		OK-04	COMANCHE	RECREATION
OK20505	POTAWATOMI TWINS		OK-04	COMANCHE	RECREATION
OK20507	UPPER CANYON		OK-04	COMANCHE	RECREATION
OK20511	BROWN LAKE		OK-03	PITTSBURG	RECREATION
OK20992	GREEN LEAF LAKE	GREENLEAF LAKE	OK-02	MUSKOGEE	FISH & WILDLIFE
OK20993	OKNONAME 101018		OK-02	MUSKOGEE	FISH & WILDLIFE
OK20994	OKNONAME 101019		OK-02	MUSKOGEE	FISH & WILDLIFE
OK20995	PUMPKIN CENTER POND		OK-02	MUSKOGEE	FISH & WILDLIFE
OK20996	OKNONAME 101020		OK-02	MUSKOGEE	FISH & WILDLIFE
OK20997	WPA POND		OK-02	MUSKOGEE	FISH & WILDLIFE
OK21481	ROCKET LAKE		OK-03	PITTSBURG	RECREATION
OK21482	RESERVOIR NO.1		OK-03	PITTSBURG	RECREATION
OK21483	RESERVOIR NO.2		OK-03	PITTSBURG	RECREATION
OK21484	RESERVOIR NO.3		OK-03	PITTSBURG	RECREATION
OK21485	RESERVOIR NO.4		OK-03	PITTSBURG	RECREATION
OK82301	BRUSHY PEACEABLE CREEK WTR SHD #37	CALDONIA	OK-03	PITTSBURG	RECREATION
OK82302	DEER CREEK RESERVOIR		OK-03	PITTSBURG	RECREATION
OK21080	JONES LAKE		OK-03	PITTSBURG	RECREATION
OK02501	ARBUCKLE	LAKE OF THE ARBUCKLES		MURRAY	WATER SUPPLY
OK02500	ALTUS	ALTUS RES, LAKE ALTUS	OK-06	KIOWA	IRRIGATION
OK02502	FORT COBB	LAKE FORT COBB, FORT COBB	OK-06	CADDO	WATER SUPPLY
OK20502	MOUNTAIN PARK	TOM STEED RES	OK-06	KIOWA	IRRIGATION
OK82908	MCGEE CREEK	MCGEE CREEK LAKE		ATOKA	WATER SUPPLY
OK02504	NORMAN	LAKE THUNDERBIRD	OK-04	CLEVELAND	WATER SUPPLY
OK02503	FOSS	FOSS RES	OK-06	CUSTER	WATER SUPPLY
OK30020	APACHE		OK-04	COMANCHE	OTHER
OK82914	OSAGE		OK-04	COMANCHE	OTHER
OK30003	COMANCHE		OK-04	COMANCHE	OTHER
OK00466	LAKE ELMER THOMAS		OK-04	COMANCHE	RECREATION

OK00456	CRATER LAKE		OK-04	COMANCHE	RECREATION
OK00464	LAKE JED JOHNSON		OK-04	COMANCHE	FISH & WILDLIFE
OK00465	FRENCH LAKE		OK-04	COMANCHE	RECREATION
OK00467	LAKE RUSH		OK-04	COMANCHE	FISH & WILDLIFE
OK00468	QUANAH PARKER		OK-04	COMANCHE	OTHER
OK02505	GRAMA		OK-04	COMANCHE	OTHER
OK02507	LOST LAKE		OK-04	COMANCHE	OTHER
OK02510	CADDO		OK-04	COMANCHE	OTHER
OK30001	BURFORD		OK-04	COMANCHE	OTHER
OK30009	KIOWA		OK-04	COMANCHE	FLOOD CONTROL
OK30011	POST OAK		OK-04	COMANCHE	OTHER
OK21499	PANTHER FALLS			MURRAY	RECREATION
OK82911	VETERANS				RECREATION

Oregon

OR00003	BIG CLIFF DAM	BIG CLIFF LAKE	OR-04	LINN	HYDROELECTRIC
OR82201	WILLOW CREEK DAM	WILLOW CREEK LAKE	OR-02	MORROW	FLOOD CONTROL
OR00006	DEXTER	DEXTER LAKE	OR-04	LANE	HYDROELECTRIC
OR00005	COTTAGE GROVE	COTTAGE GROVE LAKE	OR-04	LANE	FLOOD CONTROL
OR00012	FOSTER	FOSTER LAKE	OR-04	LINN	HYDROELECTRIC
OR00007	FALL CREEK	FALL CREEK LAKE	OR-04	LANE	FLOOD CONTROL
OR00008	DORENA	DORENA LAKE	OR-04	LANE	FLOOD CONTROL
OR00612	LOST CREEK	LOST CREEK LAKE	OR-02	JACKSON	FLOOD CONTROL
OR00010	GREEN PETER	GREEN PETER LAKE	OR-04	LINN	FLOOD CONTROL
OR00016	FERN RIDGE	FERN RIDGE LAKE	OR-04	LANE	FLOOD CONTROL
OR00002	THE DALLES LOCK AND DAM	LAKE CELILO		WASCO	HYDROELECTRIC
OR00001	BONNEVILLE	LAKE BONNEVILLE	OR-03	MULTNOMAH-SKAMANIA	HYDROELECTRIC
OR00616	MCNARY LOCK AND DAM	LAKE WALLULA	OR-02	UMATILLA	NAVIGATION
OR00011	JOHN DAY DAM	UMATILLA	OR-02	SHERMAN	HYDROELECTRIC
OR82202	ELK CREEK			JACKSON	FLOOD CONTROL

OR00013	BLUE RIVER DAM	BLUE RIVER LAKE	OR-04	LANE	FLOOD CONTROL
OR00624	APPLEGATE DAM	APPLEGATE RESERVOIR	OR-02	JACKSON	IRRIGATION
OR00015	COUGAR	SOUTH FORK MCKENZIE RIVER	OR-04	LANE	HYDROELECTRIC
OR00014	HILLS CREEK	HILLS CREEK LAKE	OR-04	LANE	FLOOD CONTROL
OR00004	DETROIT	DETROIT LAKE	OR-04	LINN	HYDROELECTRIC
OR00009	LOOKOUT POINT	LOOKOUT POINT LAKE	OR-04	LANE	FLOOD CONTROL
OR00694	HAPPY VALLEY	HAPPY CANYON	OR-02	WASCO	IRRIGATION
OR00601	INDIAN LAKE		OR-02	UMATILLA	RECREATION
OR00591	KEENE CREEK	KEENE CREEK RES	OR-02	JACKSON	HYDROELECTRIC
OR00588	THREE MILE FALLS DIVERSION	THREE MILE FALLS POOL	OR-02	UMATILLA	IRRIGATION
OR00587	MALONE DIVERSION	MALONE POOL	OR-02	KLAMATH	IRRIGATION
OR00422	AGATE	AGATE RES	OR-02	JACKSON	IRRIGATION
OR00287	HAYSTACK	HAYSTACK RES	OR-02	JEFFERSON	IRRIGATION
OR00586	LOST RIVER DIVERSION	WILSON RES, LOST RIVER	OR-02	KLAMATH	IRRIGATION
OR00326	WASCO	CLEAR LAKE	OR-02	WASCO	IRRIGATION
OR00581	EMIGRANT	EMIGRANT RES	OR-02	JACKSON	IRRIGATION
OR00592	THIEF VALLEY	THIEF VALLEY RES		BAKER, UNION	IRRIGATION
OR00593	UNITY	UNITY RES	OR-02	BAKER	IRRIGATION
OR00578	BULLY CREEK	BULLY CREEK RES	OR-02	MALHEUR	IRRIGATION
OR10013	HYATT	HYATT RES, HYATT PRAIRIE	OR-02	JACKSON	IRRIGATION
OR10020	SCOGGINS	HENRY HAGG LAKE	OR-01	WASHINGTON	IRRIGATION
OR00583	MCKAY	MCKAY RES	OR-02	UMATILLA	IRRIGATION
OR00590	COLD SPRINGS	COLD SPRINGS RES	OR-02	UMATILLA	IRRIGATION
OR00589	AGENCY VALLEY	BEULAH RES, AGENCY VALL	OR-02	MALHEUR	IRRIGATION
OR00577	MASON	PHILLIPS LAKE	OR-02	BAKER	IRRIGATION
OR00580	HOWARD PRAIRIE	HOWARD PRAIRIE RES/LAKE	OR-02	JACKSON	IRRIGATION
OR00579	ARTHUR R. BOWMAN	PRINEVILLE RES	OR-02	CROOK	IRRIGATION
OR00584	GERBER	GERBER RES	OR-02	KLAMATH	IRRIGATION
OR00082	WARM SPRINGS	WARM SPRINGS RES		MALHEUR	IRRIGATION
OR10022	WICKIUP	WICKIUP RES	OR-02	DESCHUTES	IRRIGATION

OR00582	OWYHEE	LAKE OWYHEE	OR-02	MALHEUR	IRRIGATION
OR00557	LINK RIVER DIVERSION	UPPER KLAMATH LAKE	OR-02	KLAMATH	HYDROELECTRIC
OR00057	MCDADE	MCDADE RES	OR-02	HARNEY	IRRIGATION
OR00071	ORIANA	ORIANA RES	OR-02	HARNEY	IRRIGATION
OR00157	ROCK CREEK	ROCK CREEK RES	OR-02	HARNEY	IRRIGATION
OR00399	ZOGLMANN	ZOGLMANN RES	OR-02	HARNEY	IRRIGATION
OR00585	ANDERSON-ROSE DIVERSION	ANDERSON-ROSE POOL	OR-02	KLAMATH	IRRIGATION
OR00603	MAHON'S	MAHON'S RES	OR-02	HARNEY	IRRIGATION
OR00381	CRESCENT LAKE	CRESCENT LAKE RES	OR-02	KLAMATH	IRRIGATION
OR00279	CRANE PRAIRIE	CRANE PRAIRIE RES	OR-02	DESCHUTES	IRRIGATION
OR00615	OCHOCO	OCHOCO RESERVOIR			
OR10027	JACOBS RESERVOIR		OR-02	LAKE	FLOOD CONTROL
OR00575	KRUMBO		OR-02	HARNEY	RECREATION
OR00576	MORGAN BROTHERS		OR-05	POLK	FISH & WILDLIFE
OR03712	SPALDING DAM	SPALDING POND	OR-02	JOSEPHINE	RECREATION
OR00130	LITTLE THREE CREEK		OR-02	DESCHUTES	IRRIGATION
OR00025	BOLAN LAKE DAM	BOLAN LAKE	OR-02	JOSEPHINE	RECREATION
OR00129	THREE CREEK	THREE CREEK LAKE	OR-02	DESCHUTES	IRRIGATION
OR03708	SPARKS	SPARKS LAKE	OR-02	DESCHUTES	FISH & WILDLIFE
OR00718	SUTTLE	SUTTLE LAKE	OR-02	JEFFERSON	FISH & WILDLIFE
OR03711	GREAT MEADOW DAM	GREAT MEADOW	OR-02	KLAMATH	
OR03710	LAKE OF THE WOODS DAM	LAKE OF THE WOODS	OR-02	KLAMATH	RECREATION
OR00281	TIMBER_LAKE	TIMBER LAKE	OR-05	CLACKAMAS	RECREATION
OR00537	DELINTMENT	DELINTMENT LAKE	OR-02	HARNEY	RECREATION
OR00538	SQUAW LAKE DAM	SQUAW LAKES	OR-02	JACKSON	RECREATION
Pennsylvania					
PA00103	UNION CITY DAM	UNION CITY LAKE	PA-21	ERIE	FLOOD CONTROL
PA00001	AYLESWORTH CREEK DAM	AYLESWORTH CREEK LAKE	PA-10	LACKAWANNA	FLOOD CONTROL
PA00008	FRANCIS E WALTER DAM	FRANCIS E. WALTER LAKE	PA-11	LUZERNE-CARBON	FLOOD CONTROL

PA00002	ALVIN R BUSH DAM	KETTLE CREEK LAKE	PA-05	CLINTON	FLOOD CONTROL
PA00106	LOYALHANNA DAM	LOYALHANNA LAKE	PA-12	WESTMORELAND	FLOOD CONTROL
PA00107	MAHONING CREEK DAM	MAHONING CREEK LAKE	PA-12	ARMSTRONG	FLOOD CONTROL
PA00011	PROMPTON DAM	PROMPTON LAKE	PA-10	WAYNE	FLOOD CONTROL
PA00108	WOODCOCK CREEK DAM	WOODCOCK CREEK LAKE	PA-21	CRAWFORD	FLOOD CONTROL
PA00102	CROOKED CREEK DAM	CROOKED CREEK LAKE	PA-12	ARMSTRONG	FLOOD CONTROL
PA01134	COWANESQUE DAM	COWANESQUE LAKE	PA-05	TIOGA	FLOOD CONTROL
PA00124	MONONGAHELA LOCKS AND DAM 07	MONONGAHELA RIVER POOL 07		GREENE	NAVIGATION
PA00006	STILLWATER DAM	STILLWATER LAKE	PA-10	SUSQUEHANNA	FLOOD CONTROL
PA01132	TIOGA DAM	TIOGA LAKE	PA-05	TIOGA	FLOOD CONTROL
PA00117	ALLEGHENY LOCK AND DAM 07	ALLEGHENY RIVER POOL 07	PA-12	ARMSTRONG	NAVIGATION
PA01133	HAMMOND DAM	HAMMOND	PA-05	TIOGA	FLOOD CONTROL
PA00114	ALLEGHENY LOCK AND DAM 04	ALLEGHENY RIVER POOL 04	PA-04	ALLEGHENY	NAVIGATION
PA00125	POINT MARION LOCK AND DAM	POINT MARION POOL		FAYETTE	NAVIGATION
PA00003	CURWENSVILLE DAM	CURWENSVILLE LAKE	PA-09	CLEARFIELD	FLOOD CONTROL
PA82201	GRAYS LANDING LOCK AND DAM	GRAYS LANDING POOL	PA-20	FAYETTE	NAVIGATION
PA00101	CONEMAUGH DAM	CONEMAUGH RIVER LAKE	PA-12	INDIANA	FLOOD CONTROL
PA00010	BELTZVILLE DAM	BELTZVILLE LAKE	PA-11	CARBON	FLOOD CONTROL
PA00118	ALLEGHENY LOCK AND DAM 08	ALLEGHENY RIVER POOL 08	PA-12	ARMSTRONG	NAVIGATION
PA00119	ALLEGHENY LOCK AND DAM 09	ALLEGHENY RIVER POOL 09	PA-05	ARMSTRONG	NAVIGATION
PA00112	ALLEGHENY LOCK AND DAM 02	ALLEGHENY RIVER POOL 02	PA-14	ALLEGHENY	NAVIGATION
PA00921	BLUE MARSH DAM	BLUE MARSH LAKE	PA-06	BERKS	FLOOD CONTROL
PA00104	EAST BRANCH DAM	EAST BRANCH-CLARION RIVER	PA-05	ELK	FLOOD CONTROL
PA00120	MONONGAHELA LOCKS AND DAM 02	MONONGAHELA RIVER POOL 02	PA-18	ALLEGHENY	NAVIGATION
PA00127	DASHIELDS LOCKS AND DAM	DASHIELDS POOL	PA-20	ALLEGHENY	NAVIGATION
PA00113	ALLEGHENY LOCK AND DAM 03	ALLEGHENY RIVER POOL 03	PA-18	ALLEGHENY	NAVIGATION
PA00116	ALLEGHENY LOCK AND DAM 06	ALLEGHENY RIVER POOL 06	PA-12	ARMSTRONG	NAVIGATION
PA00123	MAXWELL LOCKS AND DAM	MAXWELL POOL		FAYETTE	NAVIGATION
PA00121	MONONGAHELA LOCKS AND DAM 03	MONONGAHELA RIVER POOL 03	PA-18	ALLEGHENY	NAVIGATION
PA00122	MONONGAHELA LOCKS AND DAM 04	MONONGAHELA RIVER POOL 04	PA-20	WESTMORELAND	NAVIGATION

PA00109	YOUGHIOGHENY DAM	YOUGHIOGHENY RIVER LAKE		FAYETTE	FLOOD CONTROL
PA00126	EMSWORTH LOCKS AND DAMS	EMSWORTH POOL	PA-14	ALLEGHENY	NAVIGATION
PA00128	MONTGOMERY LOCKS AND DAM	MONTGOMERY POOL	PA-04	BEAVER	NAVIGATION
PA00005	FOSTER JOSEPH SAYERS DAM	BLANCHARD RESERVOIR	PA-05	CENTRE	FLOOD CONTROL
PA00111	SHENANGO DAM	SHENANGO RIVER LAKE	PA-21	MERCER	FLOOD CONTROL
PA00004	RAYSTOWN DAM	RAYSTOWN LAKE	PA-09	HUNTINGDON	FLOOD CONTROL
PA00110	TIONESTA DAM	TIONESTA LAKE	PA-05	FOREST	FLOOD CONTROL
PA00105	KINZUA DAM	ALLEGHENY RESERVOIR	PA-05	WARREN	FLOOD CONTROL
PA00115	ALLEGHENY LOCK AND DAM 05	ALLEGHENY RIVER POOL 05	PA-12	ARMSTRONG	NAVIGATION
PA00014	MARQUETTE LAKE DAM		PA-17	LEBANON	RECREATION
PA01252	ROXBURY DAM	LETTERKENNY RESERVOIR	PA-09	FRANKLIN	WATER SUPPLY
PA00259	GROUP CAMP				RECREATION
PA00989	HIDDEN LAKE				RECREATION
PA10000	EGYPT MILL POND		PA-10	PIKE	RECREATION
PA10011	PEEC POND		PA-10	PIKE	OTHER
PA10012	PICKEREL LAKE		PA-10	PIKE	RECREATION
PA10014	VALLEY CREEK				
PA82903	SAWKILL CREEK				RECREATION
PA82905	WHITSELL				RECREATION
PA82906	WHITTAKERS			PIKE	OTHER
PA00255	BEAVER MEADOWS			FOREST	FISH & WILDLIFE
PA82408	TWIN LAKES		PA-05	ELK	RECREATION

South Carolina

SC82201	ST. STEPHEN POWERHOUSE	LAKE MOULTRIE	SC-06	BERKELEY	FLOOD CONTROL
SC00225	SEMMES LAKE DAM	SEMMES LAKE	SC-02	RICHLAND	RECREATION
SC00227	UPPER DAVIS POND DAM D-1677	DAVIS POND	SC-02	RICHLAND	RECREATION
SC00228	DUPRE POND DAM	DUPRE POND	SC-02	RICHLAND	RECREATION
SC00229	UPPER LEGION LAKE DAM	UPPER LEGION LAKE	SC-02	RICHLAND	RECREATION
SC00231	LOWER TWIN LAKE DAM	LOWER TWIN LAKE	SC-02	RICHLAND	RECREATION

SC00232	MESSERS POND DAM D-1676	MESSERS POND	SC-02	RICHLAND	RECREATION
SC01891	C. S. LAKE 16		SC-05	CHESTERFIELD	OTHER
SC10015	C. S. POOL H		SC-05	CHESTERFIELD	FISH & WILDLIFE
SC10004	C. S. LAKE 17		SC-05	CHESTERFIELD	OTHER
SC01892	OXPEN		SC-05	CHESTERFIELD	FISH & WILDLIFE
SC01889	C. S. LAKE 12		SC-05	CHESTERFIELD	OTHER
SC01890	C. S. POOL G		SC-05	CHESTERFIELD	FISH & WILDLIFE
SC00033	LAKE BEE		SC-05	CHESTERFIELD	FISH & WILDLIFE
SC00036	C. S. POOL D		SC-05	CHESTERFIELD	FISH & WILDLIFE
SC00032	MARTIN		SC-05	CHESTERFIELD	FISH & WILDLIFE
SC00034	C. S. POOL K		SC-05	CHESTERFIELD	FISH & WILDLIFE
SC00035	C. S. POOL L		SC-05	CHESTERFIELD	FISH & WILDLIFE
SC01897	C. S. POOL J		SC-05	CHESTERFIELD	FISH & WILDLIFE
SC01896	HONKER		SC-05	CHESTERFIELD	FISH & WILDLIFE
SC00037	MAYS		SC-05	CHESTERFIELD	FISH & WILDLIFE
SC00001	SCNONAME 23001			GREENVILLE	RECREATION
SC01105	LICK FORK LAKE			EDGEFIELD	RECREATION
SC01232	NINETY SIX			GREENWOOD	RECREATION
SC00233	WESTON LAKE DAM	WESTON LAKE	SC-02	RICHLAND	RECREATION
South Dakota					
SD01097	COLD BROOK DAM	COLD BROOK LAKE	SD-01	FALL RIVER	FLOOD CONTROL
SD01096	COTTONWOOD SPRINGS DAM	COTTONWOOD SPRINGS LAKE	SD-01	FALL RIVER	FLOOD CONTROL
SD01094	GAVINS POINT DAM	LEWIS AND CLARK LAKE		YANKTON	FLOOD CONTROL
SD01092	BIG BEND DAM	LAKE SHARPE		BUFFALO	FLOOD CONTROL
SD01093	FORT RANDALL DAM	LAKE FRANCIS CASE	SD-01	CHARLES MIX	FLOOD CONTROL
SD01095	OAHE DAM	LAKE OAHE	SD-01	HUGHES	FLOOD CONTROL
SD82904	ROSEBUD	ROSEBUD LAKE	SD-01	TODD	RECREATION
SD82902	INDIAN SCOUT	INDIAN SCOUT LAKE	SD-01	TODD	RECREATION
SD82901	GHOST HAWK	GHOST HAWK LAKE	SD-01	TODD	RECREATION

SD02128	WANBLEE	WANBLEE LAKE	SD-01	JACKSON	RECREATION
SD00967	WOLF CREEK	WOLF CREEK LAKE	SD-01	SHANNON	WATER SUPPLY
SD82903	RING THUNDER		SD-01	TODD	RECREATION
SD00981	ALLEN	ALLEN RESERVOIR	SD-01	BENNETT	RECREATION
SD00964	KYLE	KYLE RES	SD-01	SHANNON	RECREATION
SD00545	PONCA	INDIAN LAKE, PONCA RES	SD-01	GREGORY	RECREATION
SD00714	CROW CREEK	BEDESHASHA LAKE	SD-01	BUFFALO	RECREATION
SD00965	WHITE CLAY	WHITE CLAY LAKE	SD-01	SHANNON	RECREATION
SD00968	DENBY			BENNETT	RECREATION
SD00969	OGLALA	OGLALA RESERVOIR	SD-01	SHANNON	IRRIGATION
SD02143	PARMALEE	EAGLE FEATHER LAKE	SD-01	TODD	RECREATION
SD02144	HE DOG	HE DOG LAKE	SD-01	TODD	RECREATION
SD01143	JAMES DIVERSION	JAMES DIVERSION RES	SD-01	BEADLE	WATER SUPPLY
SD01100	BELLE FOURCHE	BELLE FOURCHE RES, ORMAN	SD-01	BUTTE	IRRIGATION
SD01141	SHADEHILL	SHADEHILL RES	SD-01	PERKINS	IRRIGATION
SD00441	U.S.A.		SD-01	SULLY	WATER SUPPLY
SD01138	DEERFIELD	DEERFIELD RES	SD-01	PENNINGTON	WATER SUPPLY
SD01139	PACTOLA	PACTOLA RES	SD-01	PENNINGTON	WATER SUPPLY
SD01099	ANGOSTURA	ANGOSTURA RES	SD-01	FALL RIVER	IRRIGATION
SD10059	PERCH LAKE		SD-01	MCPHERSON	FISH & WILDLIFE
SD10060	LUXEMBERGER		SD-01	AURORA	FISH & WILDLIFE
SD00982	LITTLE WHITE RIVER		SD-01	BENNETT	IRRIGATION
SD10057	LACREEK #8		SD-01	BENNETT	FISH & WILDLIFE
SD10056	LACREEK #7		SD-01	BENNETT	FISH & WILDLIFE
SD01194	LACREEK #10		SD-01	BENNETT	FISH & WILDLIFE
SD10058	LACREEK #9		SD-01	BENNETT	FISH & WILDLIFE
SD01192	COLUMBIA ROAD		SD-01	BROWN	FISH & WILDLIFE
SD82905	SIOUX FALLS	EROS DATA CENTER	SD-01	MINNEHAHA	WATER SUPPLY
SD82929	NORBECK				TAILINGS
SD01115	RABBIT CREEK DAM		SD-01	HARDING	RECREATION

SD01116	BISMARK LAKE		SD-01	CUSTER	RECREATION
SD01117	MITCHELL LAKE		SD-01	PENNINGTON	RECREATION
SD01118	HORSETHIEF LAKE		SD-01	PENNINGTON	RECREATION
SD01119	ROUBAIX LAKE		SD-01	LAWRENCE	RECREATION
SD01120	SHERIDAN LAKE		SD-01	PENNINGTON	RECREATION
SD01136	LAKOTA	LAKOTA LAKE	SD-01	CUSTER	RECREATION
SD01172	KADOKA	KADOKA LAKE	SD-01	JACKSON	FISH & WILDLIFE
SD02162	IRON CR LAKE		SD-01	LAWRENCE	RECREATION
SD02225	MAJOR LAKE		SD-01	PENNINGTON	RECREATION
SD02226	PASTURE 8 DU NWNE	PASTURE 8			RECREATION
SD02227	PASTURE 6EN DU SWSW	PASTURE 6EN			RECREATION
SD82401	DALTON LAKE			PENNINGTON	RECREATION

Tennessee

TN02101	CHEATHAM DAM	CHEATHAM LAKE		CHEATHAM	HYDROELECTRIC
TN15901	CORDELL HULL DAM	CORDELL HULL LAKE	TN-06	SMITH	HYDROELECTRIC
TN03701	J PERCY PRIEST DAM	J PERCY PRIEST LAKE	TN-05	DAVIDSON	FLOOD CONTROL
TN04102	CENTER HILL DAM	CENTER HILL LAKE	TN-06	DE KALB	FLOOD CONTROL
TN03702	OLD HICKORY DAM	OLD HICKORY LAKE		DAVIDSON	HYDROELECTRIC
TN02702	DALE HOLLOW DAM	DALE HOLLOW LAKE	TN-06	CLAY	HYDROELECTRIC
TN12502	FLETCHERS FORK DAM	LAKE TAAL	TN-07	MONTGOMERY	RECREATION
TN12503	LAKE SITE NO. 3 DAM	LAKE SITE 3	TN-07	MONTGOMERY	RECREATION
TN16108	KYLE LAKE DAM	LAKE KYLE	TN-08	STEWART	RECREATION
TN03108	SECONDARY RETENTION RESERVOIR DAM	SECONDARY RETENTION RES	TN-04	COFFEE	OTHER
TN03109	RETENTION RESERVOIR DAM	RETENTION RESERVOIR	TN-04	COFFEE	OTHER
TN05101	ELK RIVER DAM	WOODS RESERVOIR	TN-04	FRANKLIN	WATER SUPPLY
TN07506	LITTLE LAKE		TN-08	HAYWOOD	FISH & WILDLIFE
TN07505	BIG LAKE		TN-08	HAYWOOD	FISH & WILDLIFE
TN07515	NEW LAKE		TN-08	HEYWOOD	FISH & WILDLIFE
TN01301	DOAKES CREEK	DOAKES POND	TN-04	CAMPBELL	RECREATION

TN01904	WILBUR	WILBUR LAKE	TN-01	CARTER	HYDROELECTRIC
TN11501	RACCOON MOUNTAIN	RACCOON MOUNTAIN RESERVOIR	TN-03	MARION	HYDROELECTRIC
TN07709	CEDAR	CEDAR LAKE;HALEY CREEK DAM	TN-07	HENDERSON	FLOOD CONTROL
TN07703	SYCAMORE	SYCAMOR LAKE;DRY BRANCH	TN-07	HENDERSON	FLOOD CONTROL
TN07711	REDBUD	REDBUD LAKE;DRY CREEK DAM	TN-07	HENDERSON	FLOOD CONTROL
TN16101	BARDS	BARDS LAKE	TN-08	STEWART	RECREATION
TN05903	NOLICHUCKY	DAVY CROCKETT LAKE	TN-01	GREENE	FISH & WILDLIFE
TN07712	DOGWOOD	DOGWOOD LAKE;BIG CREEK DAM	TN-07	HENDERSON	FLOOD CONTROL
TN07702	PINE	PINE LAKE;PINEY CREEK DAM	TN-07	HENDERSON	FLOOD CONTROL
TN07710	PIN OAK	PIN OAK LAKE;BROWNS CREEK	TN-07	HENDERSON	FLOOD CONTROL
TN07701	BEECH	BEECH LAKE;BEECH RIVER DAM	TN-07	HENDERSON	FLOOD CONTROL
TN16307	FORT PATRICK HENRY	FORT PATRICK HENRY LAKE	TN-01	SULLIVAN	HYDROELECTRIC
TN17704	GREAT FALLS	GREAT FALLS LAKE	TN-04	WARREN;WHITE	HYDROELECTRIC
TN13905	OCOEE NO. 1	PARKSVILLE LAKE	TN-03	POLK	HYDROELECTRIC
TN16306	BOONE	BOONE LAKE	TN-01	SULLIVAN;WASHINGTON	FLOOD CONTROL
TN03107	NORMANDY	NORMANDY LAKE	TN-04	BEDFORD;COFFEE	FLOOD CONTROL
TN11901	COLUMBIA	COLUMBIA LAKE	TN-07	MAURY	FLOOD CONTROL
TN10502	MELTON HILL	MELTON HILL LAKE	TN-02	LOUDON;ROANE	NAVIGATION
TN01903	WATAUGA	WATAUGA LAKE	TN-01	CARTER	FLOOD CONTROL
TN16305	SOUTH HOLSTON	SOUTH HOLSTON LAKE	TN-01	SULLIVAN	FLOOD CONTROL
TN05102	TIMS FORD	TIMS FORD LAKE	TN-04	FRANKLIN	FLOOD CONTROL
TN11502	NICKAJACK	NICKAJACK LAKE	TN-03	MARION	NAVIGATION
TN15501	DOUGLAS	DOUGLAS LAKE	TN-01	SEVIER	FLOOD CONTROL
TN10501	FORT LOUDOUN	FORT LOUDOUN LAKE	TN-02	LOUDON	NAVIGATION
TN08903	CHEROKEE	CHEROKEE LAKE	TN-01	JEFFERSON;GRAINGER	FLOOD CONTROL
TN10506	TELLICO	TELLICO LAKE	TN-02	LOUDON	NAVIGATION
TN01302	NORRIS	NORRIS LAKE	TN-03	CAMPBELL;ANDERSON	FLOOD CONTROL
TN06504	CHICKAMAUGA	CHICKAMAUGA LAKE	TN-03	HAMILTON	NAVIGATION
TN12102	WATTS BAR	WATTS BAR LAKE	TN-04	MEIGS;RHEA	NAVIGATION
TN07101	PICKWICK LANDING	PICKWICK LAKE; PICKWICK	TN-04	HARDIN	NAVIGATION

TN07704	LOST CREEK		TN-07	HENDERSON	FLOOD CONTROL
TN13904	OCOEE NO. 2	OCOEE NO. 2 LAKE	TN-03	POLK	HYDROELECTRIC
TN13901	OCOEE NO. 3	OCOEE NO. 3 LAKE	TN-03	POLK	HYDROELECTRIC
Texas					
TX00018	ADDICKS DAM		TX-07	HARRIS	FLOOD CONTROL
TX00019	BARKER DAM		TX-07	HARRIS	FLOOD CONTROL
TX00006	HORDS CREEK DAM	HORDS CREEK LAKE	TX-17	COLEMAN	WATER SUPPLY
TX08006	NORTH SAN GABRIEL DAM	LAKE GEORGETOWN	TX-21	WILLIAMSON	WATER SUPPLY
TX08004	AQUILLA DAM	AQUILLA LAKE	TX-11	HILL	WATER SUPPLY
TX00001	BARDWELL DAM	BARDWELL LAKE	TX-24	ELLIS	WATER SUPPLY
TX00003	BENBROOK DAM	BENBROOK LAKE	TX-06	TARRANT	WATER SUPPLY
TX08005	GRANGER DAM	GRANGER LAKE	TX-14	WILLIAMSON	WATER SUPPLY
TX00010	PROCTOR DAM	PROCTOR LAKE	TX-17	COMANCHE	WATER SUPPLY
TX00009	NAVARRO MILLS DAM	NAVARRO MILLS LAKE	TX-24	NAVARRO	WATER SUPPLY
TX00012	O C FISHER DAM	O. C. FISHER LAKE	TX-17	TOM GREEN	WATER SUPPLY
TX08007	PAT MAYSE	PAT MAYSE LAKE	TX-01	LAMAR	FLOOD CONTROL
TX00014	STILLHOUSE HOLLOW DAM	STILLHOUSE HOLLOW LAKE	TX-11	BELL	WATER SUPPLY
TX00016	WACO DAM	WACO LAKE	TX-11	MCLENNAN	WATER SUPPLY
TX00005	GRAPEVINE DAM	GRAPEVINE LAKE	TX-26	TARRANT	WATER SUPPLY
TX08009	JOE POOL DAM	JOE POOL LAKE	TX-24	DALLAS	WATER SUPPLY
TX00013	SOMERVILLE DAM	SOMERVILLE LAKE	TX-14	BURLESON	WATER SUPPLY
TX00002	BELTON DAM	BELTON LAKE	TX-11	BELL	WATER SUPPLY
TX00015	TOWN BLUFF DAM (DAM B)	B. A. STEINHAGEN LAKE	TX-02	TYLER	OTHER
TX04358	LAKE KEMP		TX-13	BAYLOR	WATER SUPPLY
TX00020	FERRELLS BRIDGE DAM	LAKE O' THE PINES	TX-01	MARION	WATER SUPPLY
TX08011	COOPER DAM	COOPER LAKE		HOPKINS	WATER SUPPLY
TX00021	WRIGHT PATMAN DAM	WRIGHT PATMAN LAKE		BOWIE	WATER SUPPLY
TX00007	LAVON DAM	LAVON LAKE	TX-03	COLLIN	WATER SUPPLY
TX00017	WHITNEY DAM	WHITNEY LAKE	TX-11	BOSQUE	FISH & WILDLIFE

TX00038	TRUSCOTT	TRUSCOTT LAKE		KING	OTHER
TX00011	SAM RAYBURN DAM	SAM RAYBURN RESERVOIR	TX-02	JASPER	WATER SUPPLY
TX00004	CANYON DAM	CANYON LAKE	TX-21	COMAL	FISH & WILDLIFE
TX00008	LEWISVILLE DAM	LEWISVILLE LAKE	TX-26	DENTON	WATER SUPPLY
TX08010	RAY ROBERTS DAM	RAY ROBERTS LAKE	TX-04	DENTON	WATER SUPPLY
TX00362	CANEY CREEK DAM	CANEY CREEK RESERVOIR	TX-01	BOWIE	WATER SUPPLY
TX00363	ELLIOTT CREEK DAM	ELLIOTT CREEK	TX-01	BOWIE	RECREATION
TX04559	ENGINEER LAKE DAM	ENGINEER LAKE	TX-11	BELL	RECREATION
TX04560	TANK WASH DAM		TX-11	BELL	WATER SUPPLY
TX04642	BLUE MATCH LAKE DAM	BLUE WATCH LAKE	TX-11	CORYELL	RECREATION
TX04644	COPPERAS COVE DAM NO. 3	COPPERAS COVE LAKE NO 3	TX-11	CORYELL	RECREATION
TX04645	COPPERAS COVE DAM NO. 2	COPPERAS COVE LAKE NO 2	TX-11	CORYELL	RECREATION
TX04647	LAKE HENRY DAM	LAKE HENRY	TX-11	CORYELL	WATER SUPPLY
TX04648	HEINER LAKE DAM	HEINER LAKE	TX-11	BELL	RECREATION
TX82301	LAKE C		TX-11	CORYELL	FISH & WILDLIFE
TX01441	MEDINA AIR FORCE BASE LAKE DAM	MEDINA AIR FORCE BASE LAKE	TX-20	BEXAR	RECREATION
TX04779	PALMETTO BEND DAM	LAKE TEXANA	TX-14	JACKSON	WATER SUPPLY
TX04425	CHOKE CANYON	CHOKE CANYON RES	TX-15	LIVE OAK	WATER SUPPLY
TX00023	SANFORD	LAKE MEREDITH	TX-13	HUTCHINSON	WATER SUPPLY
TX00022	TWIN BUTTES	TWIN BUTTES RES	TX-21	TOM GREEN	IRRIGATION
TX00025	RIVERSIDE DIVERSION	RIVERSIDE RES	TX-16	EL PASO, TX; MEXICO	IRRIGATION
TX05314	AMARILLO TERMINAL	AMARILLO TERMINAL RES LEV	TX-13	POTTER	WATER SUPPLY
TX05315	LUBBOCK TERMINAL LEVEE	LUBBOCK TERMINAL RES LEVEE	TX-13	LUBBOCK	WATER SUPPLY
TX00026	UMBARGER		TX-19	RANDALL	RECREATION
TX08015	JOHNSON			GILLESPIE	IRRIGATION
TX83301	ANZALDUAS DIVERSION			HIDALGO	IRRIGATION
TX83302	RETAMAL DIVERSION			HIDALGO	FLOOD CONTROL
TX02130	MCCLELLAN DAM		TX-13	GRAY	RECREATION
TX02525	LAKE MARVIN DAM		TX-13	HEMPHILL	RECREATION

Utah

UT10132	PINEVIEW	PINEVIEW RES	UT-01	WEBER	FLOOD CONTROL
UT10126	MIDVIEW	LAKE BOREHAM	UT-03	DUCHESNE	IRRIGATION
UT10130	NORTH BOTTLE HOLLOW	BOTTLE HOLLOW RES	UT-03	UNITAH	RECREATION
UT10150	CEDARVIEW		UT-03	DUCHESNE	RECREATION
UT10151	TOWAVE		UT-03	UINTAH	RECREATION
UT10152	WEAVER			GRAND	RECREATION
UT10116	CAUSEY	CAUSEY RES	UT-01	WEBER	IRRIGATION
UT10122	HUNTINGTON NORTH	HUNTINGTON NORTH RES	UT-03	EMERY	IRRIGATION
UT10149	CURRENT CREEK	CURRENT CREEK RES	UT-03	WASATCH	IRRIGATION
UT10129	NEWTON	NEWTON RES	UT-01	CACHE	IRRIGATION
UT82904	STATELINE	STATELINE RES	UT-03	SUMMIT	IRRIGATION
UT82911	UPPER STILLWATER	UPPER STILLWATER RES	UT-03	DUCHESNE	IRRIGATION
UT10125	LOST CREEK	LOST CREEK RES	UT-03	MORGAN	IRRIGATION
UT10119	EAST CANYON	EAST CANYON RES	UT-03	MORGAN	IRRIGATION
UT82901	RED FLEET	RED FLEET RES, TYZACK RES	UT-03	UNITAH	IRRIGATION
UT10113	STEINAKER	STEINAKER RES, STANAKER	UT-03	UINTAH	IRRIGATION
UT10131	WANSHIP	ROCKPORT LAKE	UT-03	SUMMIT	FLOOD CONTROL
UT10124	JOES VALLEY	JOES VALLEY RES	UT-03	EMERY	IRRIGATION
UT10120	ECHO	ECHO RES	UT-03	SUMMIT	IRRIGATION
UT82912	JORDANELLE			WASATCH	WATER SUPPLY
UT10117	DEER CREEK	DEER CREEK RES	UT-03	WASATCH	IRRIGATION
UT10133	SCOFIELD	SCOFIELD RES		SAN PETE	IRRIGATION
UT20015	STARVATION	STARVATION LAKE		DUCHESNE	IRRIGATION
UT10112	ARTHUR V. WATKINS	WILLARD RES	UT-01	BOX ELDER	IRRIGATION
UT10135	SOLDIER CREEK	STRAWBERRY RES	UT-03	WASATCH	IRRIGATION
UT10121	FLAMING GORGE	FLAMING GORGE RES	UT-03	DAGGETT	WATER SUPPLY
UT10123	HYRUM	HYRUM RES	UT-01	CACHE	IRRIGATION
UT10128	MOON LAKE	MOON LAKE RES	UT-03	DUCHESNE	IRRIGATION
UT00105	FARNSWORTH RESERVOIR		UT-03	SEVIER	RECREATION

UT10104	ACADEMY MILL			SANPETE	IRRIGATION
UT10105	BENCHES POND		UT-03	SANPETE	RECREATION
UT10106	PACER LAKE RESERVOIR		UT-03	GARFIELD	IRRIGATION
UT10108	GOOSEBERRY			GRAND	RECREATION
UT10109	LAKE OOWAH		UT-03	GRAND	RECREATION
UT10110	TONY GROVE LAKE DAM	TONY GROVE LAKE		CACHE	RECREATION
UT10141	LITTLE RESERVOIR		UT-01	BEAVER	RECREATION
UT10144	POTTERS POND NO 1			EMERY	RECREATION
UT10101	RED BUTTE DAM	RED BUTTE RESERVOIR	UT-02	SALT LAKE	IRRIGATION
Virginia					
VA19501	NORTH FORK OF POUND DAM	NORTH FORK OF POUND LAKE	VA-09	WISE	FLOOD CONTROL
VA05101	JOHN W FLANNAGAN DAM	JOHN W. FLANNAGAN LAKE	VA-09	DICKENSON	FLOOD CONTROL
VA00501	GATHRIGHT DAM	MOOMAW		ALLEGHANY	FLOOD CONTROL
VA08901	PHILPOTT DAM	PHILPOTT RESERVOIR		HENRY	HYDROELECTRIC
VA11701	JOHN H KERR DAM	JOHN H. KERR RESERVOIR	VA-05	MECKLENBURG	HYDROELECTRIC
VA03302	LONESOME GULCH	LONESOME GULCH LAKE		CAROLINE	RECREATION
VA03303	SMOOTS DAM			CAROLINE	RECREATION
VA03304	DELOS LAKE	DELOS POND		CAROLINE	RECREATION
VA03305	BOWIES DAM	BOWIES POND		CAROLINE	RECREATION
VA03306	WHITE LAKE			CAROLINE	RECREATION
VA03307	TRAVIS LOWER LAKE	TRAVIS LAKE	VA-01	CAROLINE	RECREATION
VA03326	BUZZARD ROOST POND			CAROLINE	RECREATION
VA03327	BEAVERDAM POND		VA-01	CAROLINE	RECREATION
VA03336	HERNS POND			CAROLINE	RECREATION
VA03347	BULLOCK'S POND			CAROLINE	RECREATION
VA03348	TRAVIS LAKE UPPER	UPPER TRAVIS LAKE	VA-01	CAROLINE	RECREATION
VA13501	FT PICKETT RESERVOIR DAM	NOTTOWAY RIVER		NOTTOWAY	WATER SUPPLY
VA13508	TOMMEHETON CREEK	VPI POND		NOTTOWAY	IRRIGATION
VA13525	TACTICAL BRIDGE DAM	ENGINEER POND		NOTTOWAY	OTHER

VA19902	LOWER BIG BETHEL DAM	BIG BETHEL	VA-01	YORK	WATER SUPPLY
VA70002	EUSTIS DAM	EUSTIS LAKE		NEWPORT NEWS	RECREATION
VA06112	DALTON DAM	DALTON POND	VA-10	FAUQUIER	RECREATION
VA09904	US NAVAL PROVING GROUNG DAM	US NAVAL PROVING POND	VA-01	KING GEORGE	RECREATION
VA17901	LUNGA DAM	LUNGA RESERVOIR	VA-01	STAFFORD	WATER SUPPLY
VA17904	BRECKINRIDGE DAM	BRECKINRIDGE RESERVOIR		STAFFORD	WATER SUPPLY
VA19904	CHEATHAM DAM	CHEATHAM POND	VA-01	YORK	RECREATION
VA19906	PENNIMAN DAM	PENNIMAN LAKE	VA-01	YORK	RECREATION
VA19907	BEAVER DAM	BEAVER DAM POND	VA-01	YORK	RECREATION
VA19908	BIGLER MILL DAM	BIGLER MILL POND	VA-01	YORK	OTHER
VA19909	POWELL DAM	POWELL LAKE	VA-01	YORK	RECREATION
VA19910	SKIMINO POND		VA-01	YORK	RECREATION
VA19912	POND #11 DAM	POND #11	VA-01	YORK	RECREATION
VA19913	ROOSEVELT POND DAM	ROOSEVELT POND	VA-01	YORK	RECREATION
VA00922	OTTER LAKE			AMHERST	RECREATION
VA01901	PEAKS OF OTTER		VA-05	BEDFORD	RECREATION
VA06303	MABRY MILL POND			FLOYD	WATER SUPPLY
VA06304	RAKES MILL POND		VA-09	FLOYD	
VA10005	SENECA				RECREATION
VA15308	CAMP 5		VA-11	PRINCE WILLIAM	RECREATION
VA15315	CAMP 4		VA-10	PRINCE WILLIAM	RECREATION
VA15316	CAMP 1		VA-11	PRINCE WILLIAM	RECREATION
VA15317	CAMP 3		VA-11	PRINCE WILLIAM	RECREATION
VA15318	CARTER'S DAY CAMP POND				RECREATION
VA19905	JONES MILL POND		VA-01	YORK	TAILINGS
VA19915	WORMLEY POND		VA-01	YORK	TAILINGS
VA19102	CLEAR CREEK	CLEAR CREEK LAKE	VA-09	WASHINGTON	FLOOD CONTROL
VA19101	BEAVER CREEK		VA-09	WASHINGTON	FLOOD CONTROL

Vermont

VT00001	BALL MOUNTAIN DAM	BALL MOUNTAIN LAKE	VT-01	WINDHAM	FLOOD CONTROL
VT00004	TOWNSHEND DAM	TOWNSHEND LAKE	VT-01	WINDHAM	FLOOD CONTROL
VT00003	NORTH SPRINGFIELD DAM	NORTH SPRINGFIELD LAKE	VT-01	WINDSOR	FLOOD CONTROL
VT00002	NORTH HARTLAND DAM	NORTH HARTLAND LAKE	VT-01	WINDSOR	FLOOD CONTROL
VT82401	HAPGOOD POND DAM	HAPGOOD POND	VT-01	BENNINGTON	WATER SUPPLY

Washington

WA00300	MUD MOUNTAIN DAM	MUD MOUNTAIN LAKE		KING	FLOOD CONTROL
WA00348	MILL CREEK DAM	BENNINGTON LAKE	WA-05	WALLA WALLA	FLOOD CONTROL
WA00270	LOWER MONUMENTAL DAM	LAKE HERBERT G. WEST	WA-04	FRANKLIN	NAVIGATION
WA00347	ICE HARBOR DAM	LAKE SACAJAWEA	WA-05	WALLA WALLA	NAVIGATION
WA00299	CHIEF JOSEPH DAM	RUFUS WOODS LAKE	WA-04	DOUGLAS AND OKANOGAN	HYDROELECTRIC
WA00349	LOWER GRANITE LOCK AND DAM	LOWER GRANITE LAKE		WHITMAN	NAVIGATION
WA00331	LITTLE GOOSE DAM	LAKE BRYAN		COLUMBIA	NAVIGATION
WA00298	HOWARD A HANSON DAM	HOWARD HANSON RESERVOIR	WA-08	KING	FLOOD CONTROL
WA00301	HIRAM M. CHITTENDEN LOCKS & DAM	LAKE WASHINGTON	WA-07	KING	NAVIGATION
WA00356	CHAMBERS LAKE DAM	CHAMBERS LAKE	WA-09	PIERCE	OTHER
WA00154	CATTAIL LAKE			KITSAP	RECREATION
WA00155	DEVILS HOLE			KITSAP	RECREATION
WA00278	OWHI	OWHI LAKE	WA-04	OKANOGAN	IRRIGATION
WA00277	TWIN LAKES		WA-05	FERRY	IRRIGATION
WA82901	FRENCH CANYON	FRENCH CANYON RES	WA-04	YAKIMA	IRRIGATION
WA00275	ROZA DIVERSION		WA-04	KITTITAS	IRRIGATION
WA00271	SODA LAKE DIKE	SODA LAKE	WA-04	GRANT	IRRIGATION
WA00276	EASTON DIVERSION	LAKE EASTON	WA-04	KITTITAS	IRRIGATION
WA00291	SALMON LAKE	SALMON LAKE RES	WA-04	OKANOGAN	IRRIGATION
WA00272	SPECTACLE LAKE DIKE	SPECTACLE LAKE	WA-04	OKANOGAN	IRRIGATION
WA00259	CONCONULLY	CONCONULLY RES	WA-04	OKANOGAN	IRRIGATION
WA00267	NORTH SCOOTENEY DIKE	SCOOTENEY RES	WA-04	FRANKLIN	IRRIGATION
WA00269	PINTO	BILLY CLAPP LAKE, LONG LAKE	WA-04	GRANT	IRRIGATION

WA82904	KACHESS DIKE	KACHESS LAKE	WA-04	KITTITAS	IRRIGATION
WA00268	O'SULLIVAN	POTHOLES RES	WA-04	GRANT	FLOOD CONTROL
WA00262	GRAND COULEE	FRANKLIN D. ROOSEVELT RES	WA-04	GRANT, OKANOGAN	IRRIGATION
WA00128	MOSES LAKE SOUTH	MOSES LAKE	WA-04	GRANT	IRRIGATION
WA00315	LOWER GOOSE LAKE	LOWER GOOSE LAKE RES	WA-04	GRANT	RECREATION
WA00264	CLEAR CREEK	CLEAR LAKE	WA-04	YAKIMA	FISH & WILDLIFE
WA00263	BUMPING LAKE	BANKS LAKE	WA-04	YAKIMA	IRRIGATION
WA00273	TIETON	RIMROCK LAKE	WA-04	YAKIMA	IRRIGATION
WA00265	KEECHELUS	KECHELUS LAKE	WA-04	KITTITAS	IRRIGATION
WA00260	KACHESS	KACHESS LAKE	WA-04	KITTITAS	IRRIGATION
WA00274	CLE ELUM	CLE ELUM LAKE	WA-04	KITTITAS	IRRIGATION
WA00372	COYOTE LAKE		WA-05	ADAMS	FISH & WILDLIFE
WA00317	LOWER PINE LAKE		WA-05	SPOKANE	FISH & WILDLIFE
WA82910	UPPER SNOW			CHELAN	
WA82911	NADA			CHELAN	
WA00096	FROZEN LAKE		WA-08	PIERCE	WATER SUPPLY
WA00330	TEXAS POND		WA-02	SKAGIT	RECREATION
WA01719	BAGLEY	LOWER BAGLEY LAKE	WA-02	WHATCOM	HYDROELECTRIC
WA00329	BETH LAKE	LAKE BETH	WA-04	OKANOGAN	RECREATION
WA00367	TROUT CREEK	TROUT CREEK POND	WA-03	SKAMANIA	IRRIGATION
Wisconsin					
WI00853	RAPIDE CROCHE LOCK & DAM	FOX RIVER	WI-08	OUTAGAMIE	NAVIGATION
WI00868	LITTLE KAUKAUNA GEN LAWS	FOX RIVER	WI-08	BROWN	NAVIGATION
WI00851	UPPER APPLETON DAM	LITTLE LAKE BUTTE DES MOR	WI-08	OUTAGAMIE	NAVIGATION
WI00780	EAU GALLE	SPRING VALLEY LAKE		PIERCE	FLOOD CONTROL
WI00850	LOWER APPLETON DAM	FOX RIVER	WI-08	OUTAGAMIE	NAVIGATION
WI00802	LOCK & DAM #6	POOL 6		TREMPEALEAU	NAVIGATION
WI00803	LOCK & DAM #8	POOL 8		VERNON	NAVIGATION
WI00733	LOCK & DAM #9	LOCK & DAM 9	WI-03	CRAWFORD	NAVIGATION

WI00727	LOCK & DAM #4	POOL 4		BUFFALO	NAVIGATION
WI00814	MENASHA GENLAWS	LAKE WINNEBAGO 6124	WI-06	WINNEBAGO	NAVIGATION
WI00779	LITTLE CHUTE	FOX RIVER	WI-06	OUTAGAMIE	NAVIGATION
WI00080	KAUKAUNA LOCKS & DAM	FOX RIVER	WI-08	OUTAGAMIE	NAVIGATION
WI82201	CEDARS LOCK & DAM	FOX RIVER	WI-06	OUTAGAMIE	NAVIGATION
WI00867	DEPERE GEN LAWS	FOX RIVER	WI-08	BROWN	NAVIGATION
WI01047	ALDER DAM	ALDERWOOD LAKE	WI-06	MONROE	RECREATION
WI82301	STILLWELL	STILLWELL POND	WI-06	MONROE	
WI82302	SQUAW LAKE		WI-06	MONROE	RECREATION
WI82303	UPPER SQUAW CREEK	LAKE NORTH OF BLDG 5030	WI-06	MONROE	RECREATION
WI82304	WEST SILVER		WI-06	MONROE	RECREATION
WI82305	SWAMP LAKE		WI-06	MONROE	RECREATION
WI82306	EAST SPARTA	EAST SPARTA LAKE	WI-06	MONROE	RECREATION
WI82307	EAST SILVER	EAST SILVER LAKE	WI-06	MONROE	RECREATION
WI00346	LAKE GEN LAWS		WI-08	MENOMINEE	RECREATION
WI00827	SPRAGUE MATHER		WI-06	JUNEAU	FISH & WILDLIFE
WI12831	BALSAM CREEK	BALSAM CREEK FLOWAGE	WI-07	SAWYER	FISH & WILDLIFE
WI01139	WOODUCK POND	JONES SPRING IMPOUNDMENT	WI-08	OCONTO	FISH & WILDLIFE
WI00670	IKE LAKE		WI-07	SAWYER	FISH & WILDLIFE
WI00952	LYNCH CREEK NO 5		WI-07	SAWYER	FISH & WILDLIFE
WI11495	ALVIN CREEK DAM	ALVIN CREEK FLOWAGE	WI-08	FOREST	FISH & WILDLIFE
WI12807	WILDCAT CREEK	WILDCAT CREEK IMPOUNDMENT	WI-08	FOREST	FISH & WILDLIFE
WI00820	LAKE THREE DAM	LAKE THREE	WI-07	ASHLAND	RECREATION
WI12843	DEER CREEK DAM	DEER CREEK IMPOUNDMENT	WI-08	FOREST	FISH & WILDLIFE
WI12806	COYOTE CREEK DAM	COYOTE CREEK FLOWAGE	WI-08	FOREST	FISH & WILDLIFE
WI12815	SCOTT CREEK DAM	SCOTT CREEK IMPOUNDMENT		ONEIDA	FISH & WILDLIFE
WI00258	HAYMEADOW DAM	HAYMEADOW FLOWAGE		FOREST	FISH & WILDLIFE
WI00723	SQUAW CREEK DAM	SQUAW CREEK WATERFOWL	WI-07	PRICE	FISH & WILDLIFE
WI01176	WEST ALLEN CREEK DAM	WEST ALLEN IMPOUNDMENT	WI-08	FOREST	FISH & WILDLIFE
WI01175	BRISS LAKE DAM	BRISS LAKE IMPOUNDMENT	WI-08	FOREST	FISH & WILDLIFE

WI00673	WAUPEE DAM	WAUPEE FLOWAGE	WI-08	OCONTO	FISH & WILDLIFE
WI12820	POPPLE CREEK		WI-07	PRICE	FISH & WILDLIFE
WI00207	UPPER STEVE CREEK		WI-07	TAYLOR	FISH & WILDLIFE
WI00823	BLACK LAKE DAM AND BRIDGE	BLACK LAKE	WI-07	SAWYER	RECREATION
WI01184	KNOWLES CREEK DAM	KNOWLES CREEK IMPOUNDMENT	WI-08	FOREST	FISH & WILDLIFE
WI12822	MIDDLE WILSON FLOWAGE(WILSON 2		WI-07	PRICE	FISH & WILDLIFE
WI00824	MONDEAUX RIVER DAM	MONDEAUX FLOWAGE	WI-07	TAYLOR	RECREATION
WI00821	DAY LAKE		WI-07	ASHLAND	RECREATION
WI00822	LAKE OWEN OUTLET	LAKE OWEN	WI-07	BAYFIELD	RECREATION

West Virginia

WV06106	MORGANTOWN LOCK AND DAM	MORGANTOWN POOL	WV-01	MONONGALIA	NAVIGATION
WV06107	HILDEBRAND LOCK AND DAM	HILDEBRAND POOL	WV-01	MONONGALIA	NAVIGATION
WV10924	R D BAILEY DAM	R. D. BAILEY LAKE	WV-03	WYOMING AND MINGO	FLOOD CONTROL
WV03907	LONDON LOCK & DAM		WV-02	KANAWHA	NAVIGATION
WV09903	BEECH FORK LAKE DAM	BEECH FORK LAKE	WV-03	WAYNE	FLOOD CONTROL
WV06108	OPEKISKA LOCK AND DAM	OPEKISKA POOL	WV-01	MONONGALIA	NAVIGATION
WV00707	BURNSVILLE LAKE DAM	BURNSVILLE LAKE	WV-02	BRAXTON	FLOOD CONTROL
WV09901	EAST LYNN DAM	EAST LYNN LAKE	WV-03	WAYNE	FLOOD CONTROL
WV03908	MARMET LOCK & DAM		WV-02	KANAWHA	NAVIGATION
WV00701	SUTTON DAM	SUTTON LAKE	WV-02	BRAXTON	FLOOD CONTROL
WV09101	TYGART DAM	TYGART LAKE	WV-01	TAYLOR	NAVIGATION
WV08902	BLUESTONE DAM	BLUESTONE LAKE	WV-03	SUMMERS	FLOOD CONTROL
WV00049	STONEWALL JACKSON DAM,WV	STONEWALL JACKSON LAKE	WV-02	LEWIS	FLOOD CONTROL
WV06702	SUMMERSVILLE DAM	SUMMERSVILLE LAKE	WV-02	NICHOLAS	FLOOD CONTROL
WV07903	WINFIELD LOCK & DAM		WV-02	PUTNAM	NAVIGATION
WV02901	NEW CUMBERLAND LOCKS AND DAM	NEW CUMBERLAND POOL		HANCOCK	NAVIGATION
WV06908	PIKE ISLAND LOCKS & DAM	PIKE ISLAND POOL	WV-01	OHIO	NAVIGATION
WV07301	WILLOW ISLAND LOCK & DAM			WASHINGTON	NAVIGATION
WV10301	HANNIBAL LOCKS AND DAM	HANNIBAL POOL	WV-01	WETZEL	NAVIGATION

WV10702	BELLEVILLE LOCKS & DAM		MEIGS	NAVIGATION
WV05302	ROBERT C BYRD LOCKS & DAM		WV-02 MASON	NAVIGATION
WV05301	RACINE LOCK & DAM		WV-02 MASON	NAVIGATION
WV07502	LAKE BUFFALO		WV-03 POCAHONTAS	RECREATION
WV08301	SPRUCE KNOB LAKE		WV-02 RANDOLPH	FISH & WILDLIFE
WV02505	SUMMIT LAKE		WV-03 GREENBRIER	RECREATION
WV02506	SHERWOOD LAKE	LAKE SHERWOOD	WV-03 GREENBRIER	RECREATION
Wyoming				
WY01398	WASHAKIE	WASHAKIE RESERVOIR	WY-01 FREMONT	IRRIGATION
WY01399	RAY LAKE	RAY LAKE RESERVOIR	WY-01 FREMONT	IRRIGATION
WY01475	LITTLE ROBBER DETENTION DAM	LITTLE ROBBER DETENTION	WY-01 CARBON	FLOOD CONTROL
WY01379	DEAVER	DEAVER RES	WY-01 PARK	WATER SUPPLY
WY01294	KORTES	KORTES RES	WY-01 CARBON	HYDROELECTRIC
WY01383	WIND RIVER DIVERSION		WY-01 FREMONT	IRRIGATION
WY01292	GRAY REEF	GRAY REEF RES	WY-01 NATRONA	IRRIGATION
WY01384	GRASSY LAKE		WY-01 TETON	IRRIGATION
WY01298	ANCHOR	ANCHOR RES	FREMONT	IRRIGATION
WY01381	PILOT BUTTE	PILOT BUTTE RES	WY-01 FREMONT	IRRIGATION
WY82915	EDEN WEST DIKE	EDEN RES	WY-01 SWEETWATER	IRRIGATION
WY01293	GUERNSEY	GUERNSEY RES	WY-01 PLATTE	IRRIGATION
WY01290	ALCOVA	ALCOVA RES	WY-01 NATRONA	IRRIGATION
WY01378	BULL LAKE		WY-01 FREMONT	IRRIGATION
WY01389	FONTENELLE	FONTENELLE RES	WY-01 LINCOLN, SWEETWATER	HYDROELECTRIC
WY01300	BUFFALO BILL	BUFFALO BILL RES	WY-01 PARK	HYDROELECTRIC
WY01297	SEMINOE	SEMINOE RES	WY-01 CARBON	IRRIGATION
WY01380	KEYHOLE	KEYHOLE RES	WY-01 CROOK	IRRIGATION
WY01296	PATHFINDER	PATHFINDER RES	WY-01 NATRONA	IRRIGATION
WY01291	GLENDO	GLENDO RES	WY-01 PLATTE	FLOOD CONTROL
WY01385	JACKSON LAKE	JACKSON LAKE RES	WY-01 TETON	IRRIGATION

WY01299	BOYSEN	BOYSEN RES	WY-01	FREMONT	FLOOD CONTROL
WY00916	SAND MESA NO. 1	SAND MESA NO. 1 RES	WY-01	FREMONT	OTHER
WY01382	WILLWOOD DIVERSION		WY-01	PARK	IRRIGATION
WY01498	SAND MESA NO. 2	SAND MESA NO. 2 RES	WY-01	FREMONT	OTHER
WY82920	WILLWOOD DIVERSION EMBANKMENT		WY-01	PARK	IRRIGATION
WY01390	MEEKS CABIN	MEEKS CABIN RES	WY-01	UINTA	IRRIGATION
WY01387	BIG SANDY	BIG SANDY RES	WY-01	SWEETWATER	IRRIGATION
WY01287	UHL				IRRIGATION
WY01713	JACOBS NO FS 9-213-13	JACOBS NO F S 9-213-13	WY-01	CONVERSE	FISH & WILDLIFE
WY82401	MORTON NO F S 9-231-38		WY-01	CONVERSE	FISH & WILDLIFE
WY01708	IRWIN NO F S 9-212-7	IRWIN NO FS 9-212-7	WY-01	CONVERSE	FISH & WILDLIFE
WY01358	MORTON NO F S 9-231-39	MORTON F S 9-231-39	WY-01	CONVERSE	FISH & WILDLIFE
WY01325	CELLERS WILDLIFE 9-499-3		WY-01	WESTON	FISH & WILDLIFE
WY01344	SIBLEY	SIBLEY LAKE	WY-01	SHERIDAN	RECREATION
WY01645	FIDDLERS LAKE		WY-01	FREMONT	RECREATION
WY01377	COTTONWOOD LAKE		WY-01	LINCOLN	RECREATION
WY00085	CLEAR LAKE DAM	CLEAR CREEK	WY-01	SUBLETTE	RECREATION
WY00327	SAND LAKE		WY-01	CARBON	RECREATION
WY01561	BLACK JOE		WY-01	SUBLETTE	RECREATION
WY01276	MIDDLE PINEY LAKE DAM		WY-01	SUBLETTE	RECREATION
WY01334	MEADOW LARK	MEADOW LARK LAKE	WY-01	WASHAKIE	RECREATION
WY01044	COOK LAKE		WY-01	CROOK	RECREATION

Task 4 **The Economic Impact of Man-Made Lake Recreation**

Note: Appendices 1 - 2 and Figures 1 - 4, which are referred to below, are not included, but may be obtained by calling 202-219-7104.

Recreation associated with the 1,782 Federal Man-Made Lakes supports hundreds of thousands of jobs, and it accounts for one-half of one percent of the Nation's gross domestic product. Recreational fishing, boating, swimming, camping, wildlife observation/photography, and land associated recreation that includes picnicking, hiking, etc. provide significant economic benefits.

Congress directed the National Recreation Lakes Study Commission to determine the economic impact of recreation at Federally managed man-made lakes and reservoirs. Reliable estimates of recreation associated with man-made lakes are reported for the Bureau of Reclamation, the Corps of Engineers, and the Tennessee Valley Authority. These three agencies operate fifty percent of all Federal man-made lakes. The Commission estimated the recreation associated with other Federal agencies.

The Commission staff has produced a broad economic overview of recreation's economic impact at Federal man-made lakes. A higher level of detail was cost prohibitive. The Commission staff used agency data, surveys of recreationalists conducted by independent contractors, and Census Bureau data to estimate expenditures and annual economic impacts associated with Federal man-made lake recreation (Table 1). Agency estimates of visitor days were multiplied by Gallup Survey percentages of the types of recreation engaged in to determine the days of recreation associated with six distinct types of recreational activities. The Gallup Survey was commissioned by the Tennessee Valley Authority. The Commission assumed that the types of recreational activity engaged in at Federal man-made lakes remained constant, regardless of the managing Federal agency.

The days of recreation were multiplied by the economic expenditure for the specific recreation type. Recreational fishing and wildlife observation/photography expenditure estimates were derived from the 1996 National Survey of Fishing, Hunting, and Wildlife Associated Recreation conducted by the Bureau of the Census for the U.S. Fish and Wildlife Service. Recreational boating expenditure estimates were provided by the Boat Owners Association of the United States (Michael Sciulla, Personal Communication). Estimates for camping, swimming, and other land based associated recreation were derived from a draft report on the Economic Impacts of Recreational Activity on Public Lands Managed by the U.S. Department of the Interior, 1997, Peacock, et.al. These estimates took into account only trip related expenditures.

The goal of this analysis is to determine the economic impact of the six types of recreation associated with Federal man-made lakes. The Commission used a national economic multiplier of 2.7 for waterborne recreation (Fedler and Nickum) and a multiplier of 2.0 (U.S. Fish and Wildlife Service) for land based recreation. The Commission used the estimate of 14,500 jobs

created for every billion dollars of total economic impact to determine employment associated with Federal man-made lake recreation (Peacock, 1997).

The Study finds that economic impact associated with recreation at the 1,782 Federal man-made lakes is \$44 billion annually. The total employment associated with recreation at these lakes is 637,000. Detailed Agency analysis follows:

Bureau of Reclamation

The Bureau of Reclamation (BOR) hosts recreationists at 288 man-made lakes (Figure 1). BOR has water projects in 17 Western states--projects that cover 1.7 million surface acres of water and 13,000 miles of shoreline. BOR projects contain 30,000 campsites and host approximately 16.5 million angler days per year. This represents almost 10 percent of the total freshwater lake and reservoir angling in the nation. These anglers expend \$1.2 billion in direct expenditures that provide for \$3.1 billion in economic impacts. The Commission estimates that economic impacts for all recreational activities associated with BOR man-made lakes is \$6 billion annually. The estimated total employment associated with BOR managed lakes is 87,000 jobs (Table 2).

U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers (Corps) provides recreation for hundreds of million of visitors each year (Figure 2). The Corps operates 537 dams in 43 states. The Corps manages 11.5 million acres of land and water, 56,000 miles of shoreline, 3,500 launching ramps, 93,000 campsites, and 55,000 picnic sites. They estimated that 212 million visitor days of recreation occurred at their man-made lakes in 1996. These visitors spent \$10 billion on goods and services related to recreation. The economic impact of recreation at Corps facilities is \$25.1 billion annually. The Commission estimated total employment associated with Corps managed lakes is 364,000 jobs (Table 3).

Tennessee Valley Authority

The Tennessee Valley Authority (TVA) provides recreation for more than one hundred million visitors each year (Figure 3). TVA operates 54 dams in 6 states. They estimated that 108 million visitor days of recreation occurred at their man-made lakes in 1996. These visitors spent \$5.1 billion on goods and services related to recreation. The economic impact of recreation at TVA managed lakes is \$12.9 billion annually. The Commission estimated total employment associated with TVA managed lakes is 186,000 jobs (Table 4).

In addition to the Commission analysis, TVA has conducted several studies on specific lakes. A cooperative study (1988-1989) by the North Carolina Division of Water Resources, U.S. Department of Agriculture Forest Service Southeastern Forest Experiment Station, University of Georgia Department of Agricultural Economics, and TVA examined the recreation benefits to lake users and regional economic impact on four reservoirs in Western North Carolina. The baseline aggregate net economic value of recreation was estimated to be over \$14 million per year. The annual mean net economic value (willingness to pay) per visitor was estimated at

\$39.84 for the four reservoirs under current conditions. Economic impacts for the six county region were determined to be nearly \$62 million in total gross output, \$39 million in total income, and 1500 jobs attributable to recreational spending. Total gross output is defined as the sum of all industry sales or the annual sales of outputs produced. Direct spending by all lake visitors in the six county impact area was estimated to average \$53 per person/trip. The total level of business activity related to reservoir recreation in the six county Western North Carolina region was \$95 million per year.

A joint study (1993) of aquatic plant coverage and outdoor recreation at TVA's Guntersville Lake in north Alabama was conducted by TVA, U.S. Army Corps of Engineers Waterways Experiment Station, U.S. Forest Service Southeastern Forest Experiment Station, and the University of Georgia Department of Agricultural and Applied Economics. Mean net economic value per visitor (individual willingness to pay) for access rights to the reservoir was estimated as a benefit measure via the CVM method. Under current baseline conditions (1991-92), the mean annual net economic value per visitor was estimated to be \$1,060. The grand aggregate net economic value (aggregate willingness to pay) was estimated at \$101.8 million. Mean trip expenses for recreational users in the Guntersville 11 county impact area were \$154 for fishermen, and \$126 for non-fishing recreators (1990 dollars). Total gross output due to recreational visitor spending (1991-92) in the 11-county impact region was estimated at \$518.3 million of which \$164.5 was attributed to fishermen, and \$353.8 million to non-fishing users. Total income due to recreation user visits under baseline conditions in the 11-county region was estimated to be \$283.6 million of which \$89.7 was attributed to fishermen, and \$193.9 to non-fishing visitors. Total employment in the 11-county impact area due to recreational spending was estimated to be 12,904 jobs.

Other Federal Agencies

The U.S. Forest Service owns 268 dams in 29 states. The U.S. Fish and Wildlife Service owns 138 dams in 27 states. In addition, the Service has 19 National Wildlife Refuges located on man-made lakes operated by the Bureau of Reclamation and the Corps of Engineers. The Bureau of Indian Affairs owns 152 dams on 16 states, primarily in the west. The National Park Service owns 82 dams in 23 states. 241 dams are owned by Department of Defense agencies on military reservations in 31 states. Twenty dams are owned by other Federal agencies. These 903 dams represent 50 percent of the Federal total, according to the Federal Emergency Management Agency's National Inventory of Dams 1995-96.

Recreation associated with these man-made lakes has not yet been quantified. For the purpose of this report, the Commission assumed that 5 percent of waterborne recreation (Figure 4) amounting to \$1.1 billion in direct expenditures occurred at these man-made lakes. While this estimate is low compared to the percentage of total Federal dams, the Study adopts this conservative position, until accurate data from the agencies is provided. Limited public access at Department of Defense and Bureau of Indian Affairs facilities, and the limited recreational opportunities at some dams justify a conservative estimate. For example, the Fish and Wildlife Service operates many of their impoundments primarily for migratory waterfowl and as such, they are dry during part of the year.

Downstream Recreation

Several constituent groups representing downstream recreation have expressed concern that our analysis did not incorporate their activities. The Federal agencies collecting visitation information currently do not separate still water and downstream information. The Commissioners may wish to recommend that Federal agencies begin to do this in future surveys. The staff has incorporated case study information on the economic importance of downstream recreation into this economic impact report (Appendices 1 and 2), as recommended by the Colorado River Outfitters Association and America Outdoors.

References

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Personal Communication. Michael Sciulla, Vice President, Boat Owners Association of the United States, 1997.

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U.S. Department of the Interior, Fish and Wildlife Service and U.S. Department of Commerce, Bureau of the Census. 1996 National Survey of Fishing, Hunting, and Wildlife Associated Recreation. Washington, D.C.: U.S. Government Printing Office, 1997.

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Table 1. Factors Used to Determine the Economic Impact of Recreation Associated with Federal Man-Made Lakes

Activity Type ⁷	Dollar Value/Day ²	Economic Multiplier ³
33% Fishing	\$70	2.7
17% Boating	\$70	2.7
8% Swimming	\$21	2.0
19% Camping	\$21	2.0
11% Wildlife Obser.	\$34	2.0
12% Land Activities	\$21	2.0

Table 2. Economic Impact and Jobs Associated with Bureau of Reclamation Man-Made Lakes

⁷ 1992 Gallup Organization Survey at Tennessee Valley Authority Recreation Sites.

² The \$70/day values for fishing and boating and the \$34/day value for wildlife observation/photography were derived from the 1996 National Survey of Fishing, Hunting, and Wildlife Associated Recreation. The \$21/day value for the remaining activities was derived from The Economic Impacts of Recreational Activity on Public Lands Managed by the U.S. Department of Interior, 1997, Peacock, et.al.

³ Multiplier chosen to estimate the total economic impact was 2.7 for boating and fishing as described by Fedler, Anthony and D. Nickum. 1991 Economic Impact of Sport Fishing in the United States. Sport Fishing Institute, Washington, D.C. 1993. Multiplier chosen to estimate the total economic impact for all other activities was 2.0 as described by the U.S. Fish and Wildlife Service. Economic Impact of Non-consumptive Recreation in the United States. 1994.

Activity	Visitor Days ⁴	Total Economic Impact ⁵ (Billion \$)	Total Employment (jobs)
Fishing	16,500,000	3.1	45,000
Boating	8,500,000	1.6	23,000
Swimming	4,000,000	0.2	3,000
Camping	9,500,000	0.4	6,000
Wildlife Observation	5,500,000	0.4	6,000
Other Land Based Recreation	6,000,000	0.3	4,000
Total	50,000,000	6.0	87,000

Table 3. Economic Impact and Jobs Associated with U. S. Army Corps of Engineers Man-Made Lakes

⁴ Visitor use and jobs followed the methodology as described in The Economic Impacts of Recreational Activity on Public Lands Managed by the U.S. Department of the Interior, 1997, Peacock, et.al.

⁵ Multiplier chosen to estimate the total economic impact was 2.7 for boating and fishing as described by Fedler, Anthony and D. Nickum. 1991 Economic Impact of Sport Fishing in the United States. Sport Fishing Institute, Washington, D.C. 1993. Multiplier chosen to estimate the total economic impact for all other activities was 2.0 as described by the U.S. Fish and Wildlife Service. Economic Impact of Non-consumptive Recreation in the United States. 1994.

Activity	Visitor Days ⁷	Total Economic Impact ⁸ (Billion \$)	Total Employment ⁹ (jobs)
Fishing	69,900,000	13.2	191,000
Boating	36,000,000	6.8	99,000
Swimming	16,900,000	0.7	10,000
Camping	40,300,000	1.7	25,000
Wildlife Observation	23,300,000	1.6	23,000
Other Land Based Recreation	25,400,000	1.1	16,000
Total	211,800,000	25.1	364,000

Table 4. Economic Impact and Jobs Associated with Tennessee Valley Authority Man-Made Lakes

⁷ U.S. Army Corps of Engineers Nationwide Statistical Data 1996.

⁸ Multiplier chosen to estimate the total economic impact was 2.7 for boating and fishing as described by Fedler, Anthony and D. Nickum. 1991 Economic Impact of Sport Fishing in the United States. Sport Fishing Institute, Washington, D.C. 1993. Multiplier chosen to estimate the total economic impact for all other activities was 2.0 as described by the U.S. Fish and Wildlife Service. Economic Impact of Non-consumptive Recreation in the United States. 1994.

⁹ Employment determination followed the methodology as described in The Economic Impacts of Recreational Activity on Public Lands Managed by the U.S. Department of the Interior, 1997, Peacock, et.al.

Activity	Visitor Days ¹⁰	Total Economic Impact ¹¹ (Billion \$)	Total Employment ¹² (jobs)
Fishing	35,600,000	6.7	98,000
Boating	18,400,000	3.5	50,000
Swimming	8,600,000	0.4	5,000
Camping	20,500,000	0.9	13,000
Wildlife Observation	11,900,000	0.8	12,000
Other Land Based Recreation	13,000,000	0.6	8,000
Total	108,000,000	12.9	186,000

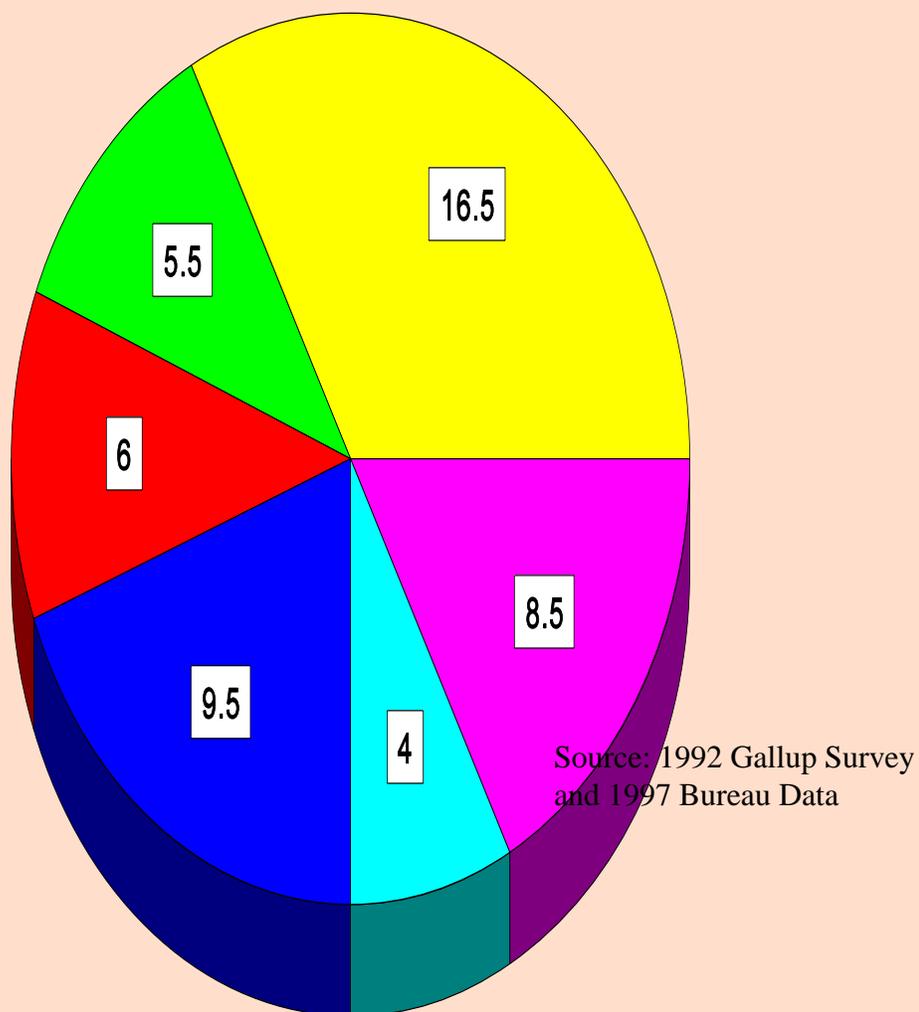
¹⁰ Visitor use was provided the Tennessee Valley Authority (Robert Farrell, Pers. Com.)

¹¹ Multiplier chosen to estimate the total economic impact was 2.7 for boating and fishing as described by Fedler, Anthony and D. Nickum. 1991 Economic Impact of Sport Fishing in the United States. Sport Fishing Institute, Washington, D.C. 1993. Multiplier chosen to estimate the total economic impact for all other activities was 2.0 as described by the U.S. Fish and Wildlife Service. Economic Impact of Non-consumptive Recreation in the United States. 1994.

¹² Employment determination followed the methodology as described in The Economic Impacts of Recreational Activity on Public Lands Managed by the U.S. Department of Interior, 1997, Peacock, et.al.

Figure 1. Recreation at Bureau of Reclamation Lakes

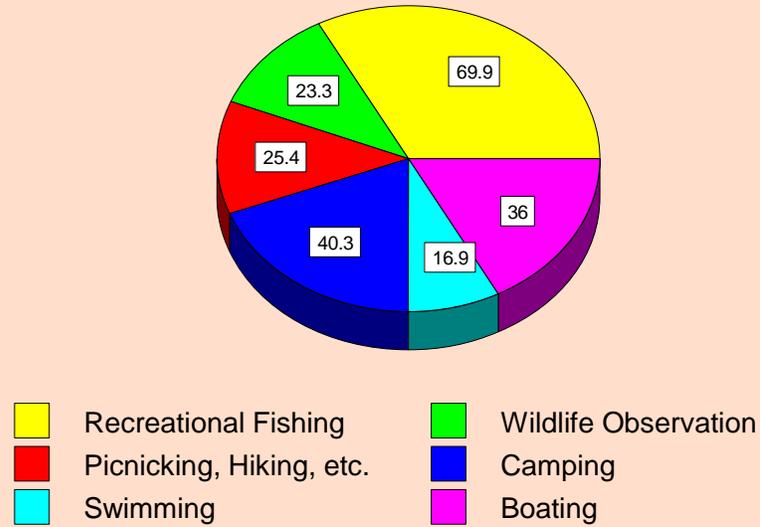
Visitor Days in Millions



- | | | | |
|---|--------------------------|---|----------------------|
|  | Recreational Fishing |  | Wildlife Observation |
|  | Picnicking, Hiking, etc. |  | Camping |
|  | Swimming |  | Boating |

Figure 2. Recreation at Corps of Engineers Lakes

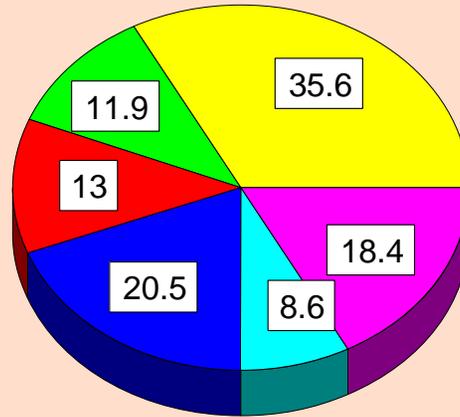
Visitor Days in Millions



Source: 1992 Gallup Survey and 1997 TVA Data

Figure 3. Recreation at TVA Lakes

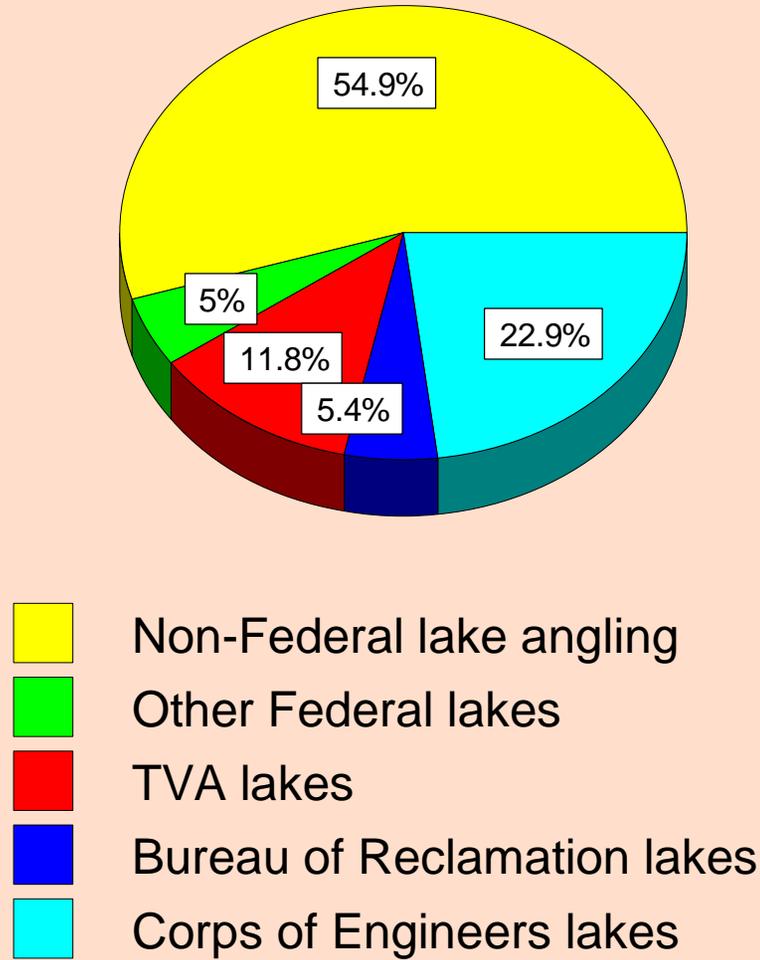
Visitor Days in Millions



Source: 1991
FWS National
Survey

- Recreational Fishing
- Wildlife Observation
- Picnicking, Hiking, etc.
- Camping
- Swimming
- Boating

Figure 4. Percentage of Recreational Fishing Provided by Federal Lakes
Excludes the Great Lakes



Task 5
Agency Audits on Subjects Related to the National Recreation Lakes Study

I. General Accounting Office Reviews:

Title & Date	Summary	Recommendations	Results
<p>Parks & Recreation: Recreational Fee Authorizations, Prohibitions, and Limitations; GAO/RCED-86-149, May 1986</p>	<p>Land and Water Conservation Fund Act of 1965 authorizes three types of recreational fees: 1) Entrance, 2) Use, and 3) Special recreational use permit fees. Entrance fees are charged by the NPS and the Forest Service for entrance in designated units. A Use Fee is a charge for using a specialized outdoor recreational site, facility, equipment, or service that is developed, administered, provided, or furnished at federal expense. The Special Recreational Use Permit Fee is charged for events involving group activities, recreational events, or motorized recreational vehicle events. Numerous amendments to the LWCFR have prohibited or limited the federal agencies' ability to assess recreational fees. The result is recreational fee program developed from a program that authorized entrance & use fees at essentially all federally own outdoor recreation areas to one that limits entrances fees at specific units of the NPS & FS and at certain other areas.</p>	<p>No recommendations offered. In that Congress there were six bills that had the potential of impacting recreational fees.</p>	<p>No recommendations to track.</p>

Title & Date	Summary	Recommendations	Results
Parks and Recreation: Park Service Managers Report Shortfalls in Maintenance Funding GOA/RCED-88-91BR March 1988	Most Park Managers have had to defer some needed maintenance - a situation attributed largely to shortfalls in funding for NPS maintenance activities. Due to the maintenance deferrals there has been deterioration of park assets. Most managers are experiencing inadequate maintenance staffing at current levels of funding. FHWA rated half of NPS' roads in poor condition.. NPS just installed the service wide Maintenance Management System to address.	No recommendations. Observations are: 1) Extensive funding shortfalls may be leading to the need for another major influx of money to repair deteriorated assets, and 2) Without adequate funding, some assets may be lost permanently.	No recommendations to track.
Parks and Recreation: Problems with fee systems for resorts operating on Forest Service Lands GAO-RCED-88-94	The Forest Service's current fee system for concessioners does not calculate a fair market value. Winter resort fees are probably lower than fair market value. The Service has not corrected four previously reported problems since 1982. The Service needs to revise its fee system to capture a fair market value.	GOA recommended that the Secretary direct the Chief of the Service to 1) develop and implement a fee system that captures a fee that more closely reflects fair market value, and 2) for those permits that do not allow the Service to use this new fee system, of for which this fee system, would not be cost-effective, either revise the current fee system to address its existing problems or replace the system with one that is less complex.	Replacement of GRFUS. 1) New ski fee legislation enacted in 1996. Fee system has changed in 2 out of 4 uses of fee system. One is ski areas, the other is recreation residences, both are significant revenue generators. The other two are: A) summer resorts and marinas which are minor uses to be updated after new fees are implemented.

Title & Date	Summary	Recommendations	Results
<p>Scenic Byways: A National Program, if created should be small scale; GAO/RCED-90-241; September 1990</p>	<p>Scenic byways reviewed were created to promote tourism or preserve scenic beauty on land adjacent to the roadway. A large variance exists in the characteristics of the byway programs and activities reviewed. In designating a byway, consideration is usually given to: 1) characteristics of the roadway corridor, 2) accessibility of the route to other byways or major tourist attractions, 3) characteristics of the roads length and type of route, 4) public awareness and support of the byway program by local governments or private sector.</p> <p>The National Park Service, U.S. Forest Service, and the Bureau of Land Management have all designated a number of routes as scenic byways on lands they own or manage.</p>	<p>If Congress decides to create a national scenic byway program, the GAO believed it should be limited in scope because 1) there appears to be little enthusiasm among state byway officials for a large program and 2) increased federal funding for such a program at this time may not be warranted in light of limited funds available to address national highway and bridge needs.</p>	<p>No recommendations to track.</p>

Title & Date	Summary	Recommendations	Results
<p>Forest Service: Difficult Choices Face the Future of the Recreation Program GAO/RCED-91- 115 April 1991</p>	<p>Two problems emerged as common to the Forest Service's management of its recreation program: 1) insufficient staff and financial resources have caused maintenance work to be deferred resulting in a backlog and 2) a need for uniform, consistent national data on the condition and resources requirements of recreational sites and areas.</p>	<p>GAO recommends that the Secretary direct the Chief of the Service to develop a strategy to guide the future direction of the Services recreation program. The strategy should contain recommendations on the funding levels and sources, the number of sites and areas to be developed and maintained, and the standards to which these sites and areas should be maintained</p>	<p>A National Recreation Strategy Report was issued February 1996. It creates a 6 step process: 1) Identify measurable components, 2) Establish standards of quality, 3) Determine and level direct costs, 4) Prioritizing work to be accomplished, 5) Develop budget and allocate the program of work, 6) Monitor, measure, and report actual management attainment.</p>

Title & Date	Summary	Recommendations	Results
<p>Natural Resources Management Issues GAO/OCG-93-17TR December 1992</p>	<p>This is a transition report issued during the Bush/Clinton transition. GAO reviewed 1) Maintaining facilities and lands and staffing programs under increasing budgetary constraints, 2) Seeking a better return for the sale or use of natural resources, 3) establishing national policies for natural resources in the 1990's.</p>	<p>No recommendations. The \$200 billion in infrastructure and lands managed by Interior, Agriculture, and Corps of Engineers are in a growing state of disrepair. Corps structures of \$125 billion will reach their design life by year 2000. Funding and staffing shortfalls have adversely affected the federal government's efforts to control the use of wetlands. The federal government should: 1) seek a better return for sale or use of natural resources, 2) cover programs costs and make some programs revenue producers, 3) provide a revenue base that can be used to better manage & improve federal lands. Legislative precedent exist for returning revenues to managing agencies or units to supplement, rather than supplant yearly appropriations. Improved pricing of user fees could help defray direct costs to the government, shift costs burden from the taxpayer to the beneficiaries and reduce overcrowding. Fees for the use of the inland waterway system are not high enough to recover costs.</p>	<p>No recommendations nothing to track.</p>

Title & Date	Summary	Recommendations	Results
<p>NPS/Activities Outside Park Borders Have Caused Damage to Resources & will Likely Cause More GAO/RCED-94-59, January 1994</p>	<p>The National Park Service (NPS) resources management system is designed to identify resource management problems, including external ones; describe needed mitigation actions; and communicate information to NPS decision makers. Current guidance does not require the collection of specific information on either the number or types of external threats facing parks, the sources of the threats, the resources damaged, or the actions taken to mitigate the problem. External threats are: urban encroachment, water quality and quantity issues, air pollution, and human activities. Damage includes: diminished scenic views, polluted streams, & destruction of wildlife & its habitat. As a result, the NPS has no means of monitoring the status of its progress in mitigating threats. Without, such information, NPS cannot work effectively with outside park parties to eliminate threats.</p>	<p>.The Secretary of the Interior should direct the Director of NPS to revise the NPS resources management planning system so that: 1) the number, type, and source of external threats are specifically identified, and inventory is established, and priorities are set for addressing the threats; 2) project statements are prepared for each external threat, describing the mitigation actions that can be taken; and 3) the status of threat mitigation actions is monitored and revised as needed.</p>	<p>The new GAO report (GAO/RCED 96-202) takes a position which allows NPS to regard the recommendation of RCED-94-59 as having been abandoned by GAO. We therefore, considered the audit closed.</p>

Title & Date	Summary	Recommendations	Results
<p>Federal Lands: Fees for communication sites are below market value GAO/RCED-94-248 July 1994</p>	<p>Annual fees charged by the U.S. Forest Service and the Bureau of Land Management for use of communications sites on public lands do not reflect the fair market value for the site or the land. This situation is caused by an 40 year-old outdated formula used by the Forest Service and BLM's fees are based on out-of-date appraisals. While directed in a conference report for FY 1992 to establish a joint advisory committee to study fees charged for using communications sites, subsequent appropriations legislation has limited the amount by which the two agencies can increase fees. Estimated increase in revenues would increase by 500 percent if fair market values were charged.</p>	<p>The Secretaries of the Interior and Agriculture continue to develop a fee system that ensures that fair market values is obtained fir the use of their communications sites. The system should be implemented unless legislatively prohibited. Both Secretaries should improve management oversight of activities at the communications sites by developing information systems that provide accurate and timely program wide information on the number, type of users, and total amount of fees generated.</p> <p>Congress should consider not renewing the current fee limits, but may wish to consider directing agencies to develop a phased-in approach to reach fair market values.</p>	<p>USDA's Forest Service stated that audit is still open. A) The USFS will continue to cooperate with Interior's BLM to establish fees that are equitable and at fair market value. Publication of a joint fee schedule is expected to occur in 6 months. B) USFS acknowledges the inadequacy of the Forest Land Use Report System and will work to revise it. C) USFS is considering the use of "footprint" lease concept to reduce the numbers of unauthorized use of communication sites; the changes would be published as part of the new fee schedule. BLM's audit tracking officers has been contacted and has not responded. 9/3/97</p>

Title & Date	Summary	Recommendations	Results
<p>National Parks: Difficult Choices Need to be made about the future of the Parks, GAO/RCED-95- 238, August 1995</p>	<p>Cause of concern about the health of the National Park Service system of parks for both visitor services and resource management. Overall visitors' services are deteriorating in parks reviewed by GAO. Trends in resource management were less clear as park managers lacked sufficient data to determine overall condition of natural and cultural resources. Two factors affected the level of visitor services and resource management: 1) additional operating requirement placed on parks by laws and administrative requirements 2) increased visitation which drives up parks' operating costs.</p>	<p>While no recommendations were provided in this report, GAO stated there were choices that needed to be made by the NPS, the Administration and the Congress centering on one or more of the following: 1) increasing the amount of financial resources going to parks, 2) limiting or reducing the number of units in the NPS System, 3) Reducing the level of visitors services.</p>	<p>No recommendations made, nothing was tracked.</p>

Title & Date	Summary	Recommendations	Results
<p>Land Ownership: Information on the Acreage, Management, and use of Federal and Other Lands, GAO/RCED-96-40, March 1996</p>	<p>The Federal Government owns about 30 percent of the nation's land; four agencies are responsible for managing 95 percent of it: U.S. Forest Service, Bureau of Land Management (BLM), Fish and Wildlife Service (FWS), and the National Park Service (NPS). The Department of Defense manages most of the remainder. Each agency manages land based on its mission: 1) Forest Service and BLM manage lands for a variety of uses, including recreation, timber harvesting, grazing, oil and gas production, mining or wilderness protection 2) FWS manages to conserve and protect fish and wildlife and their habitat, with hunting and fishing permitted when compatible with the purposes lands are managed 3) NPS manages to conserve, preserve, protect, and interpret natural, cultural, and historic resources.</p>	<p>No recommendations were requested or provided. Acreage managed by the 4 land managing agencies was reduced in the past 30 years. Between June 30, 1964, and September 30, 1994, the four land managing agencies of the Federal Government decreased by 78 million acres the amount of land under Federal control. Currently there are 622.8 million acres under Federal control.</p>	<p>No recommendations to track by any Bureau or Service. Nothing to report from either agency.</p>

Title & Date	Summary	Recommendations	Results
<p>U.S. Forest Service: Fee System for Rights-of-way Program needs revision, GAO/RCED-96-84, April 1996 See above related report: GAO/RCED-94-248, July 1994</p>	<p>The Forest Service's current fees for rights-of-way for oil and gas, pipelines, power lines, and communications lines frequently do not reflect fair market value. In 1986, the Forest Service prepared to implement a fee schedule based on market data. Concerns by Industry and agency's management that the fees were too high caused a reduction in the rates to represent the low end of the market.</p>	<p>To meet the requirements of Federal Land Policy and Management Act, Mineral Leasing Act, and the Office of Management and Budget Circular A-25, the Forest Service needs to revise the fee system to reflect fair market value basing the system on market-based valuations of the land being used.</p> <p>The Secretary should improve the program by: 1) authorizing rights-of-way with a more market-like instrument - an easement; 2) billing once during the term of authorization; 3) consolidating the billing of multiple permits issued to the same operator in a forest or region.</p>	<p>USDA's Forest Service states the audit is still opened. While the Department is strongly committed to the concept of charging fair market value, implementation of the recommendation will require a reexamination of program and budget priorities.</p> <p>Implementation of this recommendation will require the joint effort by BLM and USFS as they created the current fee schedule in 1986.</p> <p>The USFS agrees with the recommendations of improving the program. Action to implement this recommendation has been underway for over 3 years as part of an agency effort to streamline its special use authorization administration. Full implementation will be in place by mid-1997.</p>

Title & Date	Summary	Recommendations	Results
<p>National Park Service: Information on Special Account Funds at Selected Park Units, GAO/RCED-96-90, May 1996</p>	<p>Congress and the Interior Department have taken measures to deal with parks deteriorating conditions; additional funding sources have been made available to park units. Park units have been permitted to keep some funds that are generated from in-park activities without going through the annual congressional appropriation process. There are eight of them: 1) Living History accounts used by parks to offer special interpretive programs or sell merchandise that interprets the history of the park; 2) Special-Use Permits issued for activities within a park when a service or privilege is provided a visitor beyond that received by the general public; 3) Mess Operations account for collections made for food provided by the NPS to employees in the field; 4) Leasing Historic Properties within parks to tenants who pay rent which is used to maintain the property; 5) Damaged Park</p>	<p>No Recommendations.</p>	<p>No recommendations to track.</p>

Title & Date	Summary	Recommendations	Results
<p>(Con't) National Park Service: Information on Special Account Funds at Selected Park Units, GAO/RCED-96-90, May 1996</p>	<p>Resources accounts used by parks to recover from the public the cost to restore damaged resources, by recovering whatever costs it can from those who damaged the resource and applying the funds to restoring the resource; 6) Donations include cash from the general public from donation boxes as well as checks mailed by individuals, groups or corporations; 7) Cooperating Associations provide staff and volunteers to support park programs or cash for projects; 8) Concessioners' Special Accounts for improving, rehabilitating, and constructing the facilities that directly support their provision of services.</p>		

Title & Date	Summary	Recommendations	Results
<p>Bureau of Reclamation: An Assessment of the Environmental Impact Statement on the Operations of the Glen Canyon Dam, GAO/RCED-97-12, October 1996</p>	<p>Reclamation used appropriate methodologies and the best available information in determining the potential impact of the dam's various flow alternatives on selected resources. GAO identified some shortcomings and controversy in Reclamation's application of certain methodologies, and some of the data that Reclamation used in making its impact determinations were dated, preliminary, or incomplete. According to GAO and opinions of experts, the limitations are not significant enough to alter the relative ranking of the flow alternatives nor render the final environmental impact statement (EIS) unusable.</p>	<p>No GAO recommendations. However, interested parties expressed concerns about the EIS, including: 1) the manner in which compliance with the Endangered Species Act will be achieved, 2) the economic impact of reducing the Dam's hydroelectric power capacity, 3) the consideration of other possible causes of adverse downstream impacts, 4) the difficulties in measuring the impact of changes in the dam's operations, 5) the adequacy of the measures for reducing the frequency of unscheduled floods, 6) the need to install multilevel water intake structures (selective withdrawal structures) on the dam to raise the downstream water temperature, 7) the implementation of the Adaptive Management Program to provide for long-term monitoring & research to measure the actual effects of the selected alternative.</p>	<p>1) Current alternative is a compromise and there are provisions for future changes under the Adaptive Management Program. 2) Subsequent studies show that the economic impact will be substantially less than originally thought. 3) Consideration is being given to other causes. 4) All parties concerned about this. The Grand Canyon Monitoring and Research Center has released an RFP seeking research proposals concerning the issue. 5) Adequate measures are in place or are available to reduce flood frequency and there are concerns of how it will be accomplished. 6) Engineering studies have been created and being reviewed. Costs could mount to \$180 million. Or more for the retrofit. 7) Adaptive Management Program was established in the EIS. They are meeting for the first time (9/10/97). It proceeds to begin its work along with the Grand Canyon Monitoring and Research Center which has been working for the</p>

Title & Date	Summary	Recommendations	Results
<p>Federal Lands: Concession Reform is Needed, GAO/T-RCED/GGD-96-223, July 18, 1996</p>	<p>Over 90 percent of concessions agreements and the concessions gross revenues are from Concessioners in the six land managing agencies of the Federal Government. During FY 1994 Concessioners in the land managing agencies paid the government an average of 3 percent of their gross revenues, while Concessioners in the nonland managing agencies paid fees of about 9 percent of their gross revenues. Observations about the key factors affecting the rate of return to the government:</p> <ol style="list-style-type: none"> 1) whether the fee was established through competition, 2) whether the agency was permitted to retain most of the concessions' fees, 3) whether an incumbent concessioner has a preferential right in renewing its concession. 	<p>No GAO recommendations. They did note that as the Congress considers reforming concessions it may want to consider: 1) encouraging greater competition and eliminating preferential rights of renewal, 2) promoting greater consistency among the land management agencies in managing Concessioners at federal recreation areas, 3) consider providing opportunities for the land managing agencies to retain at least a portion of concession fees for site improvements.</p>	<p>No recommendations nothing to track.</p>

Title & Date	Summary	Recommendations	Results
<p>U.S. Forest Service: Fees for Recreation Special-Use Permits Do Not Reflect Fair Market Value, GAO/RCED-97-16, December 1996 See above related reports: GAO/RCED-96-84, April 1996 GAO/RCED-94-248</p>	<p>The U.S. Forest Service is not getting fair market fees for commercial and noncommercial recreation special-use permits. While the Forest Service has been authorized to recover costs incurred in reviewing and processing all types of special-use permits as far back as 1952, it has not done so. Two major factors contribute to the agency's problems in collecting fees and recovering costs: 1) the lack of priority given to the fee collection program by the agency management, 2) the lack of incentives to correct known problems. Forest Service officials acknowledge that the relatively small size of the program has translated into low priority being given to the program.</p>	<p>GAO recommended that the Secretary direct the Chief of the Forest Service to: 1) Update the methods used to calculate fees for commercial and noncommercial special-use permits so they better reflect fair market values and comply with the requirements of the Independent Offices Appropriations Act of 1952 and OMB Circular A-25. The agency may wish to phase in any increases to minimize the impact of the adjustment; 2) Develop and issue cost recovery regulations so that the agency has a legal basis for recouping the administrative costs incurred in reviewing and processing special-use permit applications. The agency needs to develop a cost accounting system. 3) Consider seeking legislation permitting agency to retain application fees in unit where costs are incurred.</p>	<p>USDA's Forest Service states audit is still open. Their findings have been sent to the Secretary. 1) USFS is working on fee determinations for several uses, some of which involve Congress and pending or proposed legislation. USFS states the approach used will deal with individual uses rather than an all-encompassing or collective approach covering all special uses. 2) Development of cost recovery regulations is underway and drafts are currently being reviewed within the agency. Final adoption of final regulations and implementation of cost recovery is scheduled to occur by 7/1/98. 3) Such a proposal would coincide with current authorization to conduct a pilot program of recreation use fee retention, from P.L. 104-134.</p>

Title & Date	Summary	Recommendations	Results
<p>Park Service: Managing for Results Could Strengthen Accountability, GAO/RCED-97- 125, April 1997</p>	<p>Headquarters plays a key role in formulating requests of increases in the NPS operating budget, decisions about spending and operating priorities associated with park operating funds are delegated to the individual park managers. Spending decisions by Park Superintendents involve tradeoffs among resource management, visitor's services, and maintenance. The current system lacks a focus on results achieved with funds spent. Regional and Headquarters staff rarely discuss with park managers operating priorities or results accomplished with the funds provided. The agency lacks a means to monitor progress toward achieving its goals and to hold park managers accountable for the results of park operations.</p>	<p>No recommendations. Implementing GPRA can both assist the Congress and the NPS in reaching agreement on goals and expectations for the agency and help hold the individual parks accountable for achieving their goals. The transition to results-oriented management in the NPS will be neither easy or quick. But GRPA'S implementation has the potential for improving the agency's performance - a particularly vital goal when resources are limited and public demands are high.</p>	<p>No recommendations to track.</p>

Title & Date	Summary	Recommendations	Results
<p>U.S. Department of the Interior Office of Inspector General Recreation Fee Charges and Collections, National Park Service Report No. 93-I-793, March 1993</p>	<p>NPS did not maximize the collection of entrance fees at 131 parks that had fee programs or institute fee programs in 63 parks eligible. Maximum fees were not collected at 194 parks because parks lacked adequate staff to operate existing fee stations and funds were not provided to initiate fee programs at parks that did not charge fees. Collection efforts were hampered by a lack of incentive because fees collected were sent to the U.S. Treasury rather than returned to the collecting parks. Legislative and deed restrictions prevent the NPS from collecting additional fees. The Land and Water Conservation Fund Act has been amended to: 1) repeal or prohibit fee programs in certain parks and 2) set fee ceilings without corresponding authority to adjust fees, and 3) establish park entrance passes that are underpriced for benefits offered.</p>	<p>Recommend that the Director, NPS: 1) request the necessary funding to collect all fees due, including the establishment of entrance fee collections programs in parks that are eligible and for which collections would be feasible; 2) seek legislative relief from restrictions that present the NPS from collecting entrance fees in certain parks and from collecting fees for back country camping, hunting and fishing, and boat launching; 3) request legislation to increase the amount that can be assessed for entrance fees in certain cases; and 4) request legislation to amend the Land and Water Conservation Funds Act to redefine the issuance and use of park passes.</p>	<p>This report had six recommendations, four of which were fully implemented and two that went into resolution with the Department. As a result of a meeting held on October 27, 1993, the Office of Financial Management and NPS Officials agreed that the recommendations should be considered resolved and implemented.</p>

Title & Date	Summary	Recommendations	Results
<p>U.S. Department of the Interior Office of Inspector General Recreation Assistance Provided to State and Local Governments, National Park Service, Report No. 93-I-1615, September 1993</p>	<p>Federal laws and regulations assigned the NPS responsibility for administering Land and Water Conservation Funds, Urban Park and Recreation Recovery and Surplus Land Programs. The NPS did not always: 1) perform scheduled site inspections or conduct state recreation program reviews in a timely manner, 2) develop guidance on the specific actions to be taken to enforce compliance with program requirements, or 3) establish procedures for verifying the propriety of grant expenditures.</p>	<p>Recommend to the Director NPS: 1) Direct Regional Offices that have inadequately monitored compliance with recreational assistance programs requirements to perform state recreation program reviews, conduct site inspections, and enforce state and municipal compliance with program requirements as priority program assignments; 2) Issue guidance that a) describes the appropriate enforcement actions to be taken when a project is in noncompliance and b) establish time frames for obtaining replacement property for converted projects lands to non-recreational uses; 3) Implement controls over automatic fund transfers to states; 4) Require regional offices to include in their state recreational program reviews an evaluation of the state's financial records.</p>	<p>NPS' audit tracking officer has been contacted and has not responded. 9/3/97</p>

Title & Date	Summary	Recommendations	Results
<p>U.S. Department of the Interior Office of Inspector General Recreation Management Activities at selected sites, Bureau of Reclamation, Report No. 95-I-870, May 1995</p>	<p>The Bureau has had limited success in its attempts to eliminate or reduce private, exclusive use of its recreation lands for long-term cabin and mobile home sites. Bureau land policy requires management to benefit as many people as possible. Policies require private use of lands to be phased out when land is needed for public recreation use. Bureau policies to phase out private use are not applicable to state and local governments that manage the majority of the Bureau's recreation lands. Permittee were allowed to invest in dwelling and other improvements as the Bureau did not establish definitive guidelines for determining when lands were needed for public use and for amortizing the investment made. As a result government recreation lands may continue to be unavailable for use by the general public for the future.</p>	<p>Recommend that the Commissioner, Bureau of Reclamation: 1) require the application of Bureau policies for long-term, exclusive use to all state and local governmental entities managing Bureau recreation are by incorporating appropriate language in new or revised development plans or management agreements; 2) Develop definitive guidelines for determining when recreation lands used for private long-term sites are needed for public use; 3) Establish a system of amortization for the private improvements on Bureau recreation lands which provides reasonable assurance that permittees receive the full benefit of their investment.</p>	<p>8/8/97: 2 recommendations remain unimplemented, Recommendation 1 is targeted to be implemented by 9/30/98. Recommendation 2 is targeted for implementation by 9/30/98. Recommendation 3 has been implemented.</p>
<p>U.S. Department of the Interior Office of Inspector General Special Use Fees, National Park Service, Report No. 96-I-49, October 1995</p>	<p>The National Park Service has not implemented its authority to collect and retain fees for special park uses in a consistent manner. There are inconsistencies among parks regarding: 1) the types of activities that were subject to fees; 2) bases for determining the amounts of fees; 3) uses of fee revenues.</p>	<p>Recommend that the Director, NPS, expedite the revision of NPS-53 "Special Park Uses" to address the inconsistencies in the setting, payment, and use of fees in all National Park Units.</p>	<p>The current draft of NPS-53 will be ready for distribution after the SOL has signed off. (31 Oct 97)</p>

Title & Date	Summary	Recommendations	Results
<p>U.S. Department of the Interior Office of Inspector General Withdrawn Lands, Department of the Interior, Report No. 96-I-1268, September 1996</p>	<p>While the Bureau of Reclamation identifies and reports land that is no longer needed for the purposes for which they were withdrawn, reviews completed by the Bureau of Land Management have not been processed through the Department because of legal concerns regarding the adequacy of the BLM's procedures. Section 204(l) of the Federal Land Policy & Management Act (FLPMA) of 1976 requires the Secretary of the Interior to review, by October 1991, certain existing land withdrawals and recommend to the President whether to continue or terminate the withdrawals. Reviews have not been processed because the Department has not resolved the disagreement between the Solicitor and BLM as to when detailed land use planning and environmental reviews are required during the review process. The lack of a Department emphasis on finishing the review process has lowered its priority for field office staff.</p>	<p>Recommend the Assistant Secretaries of Land & Mineral Management and Water & Science in consultation with the Solicitor 1) Develop an action plan for processing the backlog of land withdrawal reviews, 2) Develop and adopt policies and procedures to use the authority of Section 204(a) of the FLPMA to expedite the termination of administrative land withdrawals, 3) Take actions to ensure disputes between BLM and Reclamation regarding continuation or termination of existing land withdrawals are resolved by deadlines agreed to by cognizant field office staff.</p>	<p>The report contained 3 recommendations, Reclamation is responsible for implementing parts of Recommendation 1 with an implementation date of 9/30/97 and Recommendation 3 with an implementation date of 2002.</p> <p>Recommendation 2 is the responsibility of BLM and there has been an instructional memo issued to lay out the procedures by which SOL and BLM will process the termination of administrative land withdrawals.</p>

Title & Date	Summary	Recommendations	Results
<p>U.S. Army Audit Agency Corps-Managed Recreation Areas, Baltimore District, U.S. Army Corps of Engineer AA 96-283, 20 September 1996</p>	<p>The Corps of Engineers, Baltimore District adequately accounted for support costs and revenues and implemented many proposed changes to enhance operations and/or reduce costs. The District did not manage the recreation projects in a business-like manner.</p>	<p>District personnel needed to: 1) Take immediate actions to collect all back rent owed form concessionaires on leased property, 2) Require concessionaires on leased property to submit audited financial statement, 3) Increase camping fees within the district to market values.</p>	<p>1) Complied 2) Complied 3) Complied</p>
<p>U.S. Army Audit Agency Corps-Managed Recreation Areas, U.S. Army Engineer District, Portland, AA 96-258, 27 September 1996</p>	<p>In reviewing revenues and support costs the District implemented a system to ensure all revenues were identified and accounted for.. It identified and accounted for most costs. The District managed its recreation area and facilities in a business-like manner. A majority of the recreation facilities the district developed are now being operated by others at no cost to the Army.</p>	<p>Recommend that additional recreation facilities could be turned over to other state and local governments resulting in lower operating costs to the Army.</p>	<p>Complied, traded some parks with city; resulting in efficiency and reduced costs for both parties.</p>

Title & Date	Summary	Recommendations	Results
<p>U.S. Army Audit Agency Corps-Managed Recreation Areas U.S. Army Engineers AA 97-26 22 November 1996</p>	<p>Four Districts were audited and all were using some innovative business practices to enhance operations or reduce expenses: Charging higher fees for more desirable campsites and picnic shelters; Sharing operations of a visitors center with another Federal or State agency; Turning over operations of recreation facilities to another Federal, State or local agency; Promoting recreation areas in local newspapers, television stations, and at outdoor recreation conventions.</p> <p>Corps Headquarters also used some sound business practices such as: Identifying and tracking initial performance measurements for the recreation program; Charging day-use fees for swimming and boat launching; Using publications, meetings, and other internal communications to provide all districts with ideas on business practices used in other districts.</p>	<p>The Corps need to implement some additional business practices that will increase revenues or reduce costs.</p> <p>Improved management of the recreation areas by: 1) Providing all districts with methodology for performing efficiency reviews of recreation areas; 2) Establishing variable camp fee schedules and requiring a minimum length of stay for holidays; 3) Requiring all districts to replace buoys used to mark swimming beaches with cost-effective materials; 4) Refine performance indicators that use visitation data to reflect only visitation to Corps-operated recreation areas; 5) Charging a user fee for highly developed recreation areas; 6) Increasing shoreline management permit fees and recouping those fees from the U.S. Treasury; 7) Recouping the 25 percent of grant fees currently kept by Treasury, 8) Require the districts to charge all users full price for electric service, 9) Develop standard reports for use in obtaining information from financial management systems to be put into Natural Resources Management System (NRMS), 10) Provide more detailed guidance to personnel as to what information is required in specific data fields of the NRMS.</p>	<p>1) Pending/delayed 2) complied 3) complied 4) complied 5) complied 6) complied 7) requested Assistant Secretary of the Army direction 8) Not implemented, prohibited by law 9) complied 10) complied</p>

Title & Date	Summary	Recommendations	Results
<p>Evaluation of Planning for Fish & Wildlife, Final Report Adequacy & Predictive Value of Recommendation's at Corps Projects, December 1983</p>	<p>This report summarizes the information collected, analyzed, and published in a series of 20 individual case-histories which were designed to evaluate the adequacy and predictive efficacy of fish and wildlife planning at Corps of Engineer reservoir projects. Projects selected included all major representative types of projects (flood control, hydroelectric, & multiple use) and reflect diverse environmental habitats and geographic locations. The lack of post-project fish and wildlife resource information dramatizes the profound lack of post-impoundment documentation of project impacts of COE reservoir projects on fish & wildlife resources.</p>	<p>These composite project recommendation reiterated six major recurrent themes: 1) Fee acquisition of lands beyond those required for project purposes s identified by construction agency [13 projects]; and/or fee purchase is lieu of flooding easements [5]. 2) Operation of selected project lands by state or federal wildlife agencies under General Plan & license or other coop arrangement with the construction agency [20]. 3) Improvement of project lands [14] & waters [20] to increase carrying capacity of fish & wildlife communities. 4) Planned, direct manipulation of fish [2 pre-impoundment, stream reclamation; 5 Post-impoundment non-game fish control; 2 fish hatchery construction] and/or wildlife communities [4 farm game bird stocking]. 5) Provision of special angler access facilities [7 tailwater access, 2 reservoir access]; provision of 2 special hunter access facilities; 4 project boundary marking; 4 maintenance of public access to leased lands; & 6 zoning regulations to minimize user conflicts 6) Recommend more studies of project resources to resolve new or old fish/wildlife deficiencies.</p>	<p>Due to the age of this report (December 1983) considerable research must be done to determine the results of the recommendations.</p>

Task 6

Review of Authorized Recreation Components and the Demand for Future Recreation on Federal Lakes

Public Law 104-333 requires the National Recreation Lakes Study Commission to “review the extent to which recreation components identified in specific authorizations associated with individual Federal man-made lakes and reservoirs have been accomplished” and to project demand for future recreation.” It further requires that “to the maximum extent possible, the Commission shall use existing data and research.”

To comply with this direction, the Commission Staff conducted a literature review for the purpose of determining if information exists that would allow the Staff to evaluate recreation accomplishments, determine the demand for future recreation and make recommendations to the Commission about the adequacy of this information. At the direction of the Commissioners, Staff surveyed a statistically significant number of lakes to determine the status of recreational facilities. This paper contains those findings.

I. Literature Review of Authorized Recreation Components on Federal Reservoirs

The Sport Fishing Institute (SFI) conducted a review for the U.S. Army Corps of Engineers (CE) for very similar purposes in 1982. Though focusing on fish and wildlife resources (including recreation use derived from hunting and fishing), this report (Sport Fishing Institute, 1983) is the most comprehensive found during the Staff’s literature search for Commission purposes. The SFI report summarizes findings from that series of studies and reviews the results of the series of investigations concerning the adequacy and predictive value of fish, wildlife, and recreational planning at 20 selected CE reservoir projects.

SFI used the following criteria in selecting case studies for their review:

- Study sites selected must include all major representative types of projects (flood control, hydroelectric, and multiple-use).
- Study sites must represent diverse environmental habitats and geographical locations.
- Data on pre-construction fish and wildlife conditions for each reservoir must be available. Also projects on which post-construction fish and wildlife data are available will be given preference.
- Predictive evaluations must have been made by the Fish and Wildlife Service (FWS) on the influence of each reservoir on fish and wildlife resources.

Other factors considered in the eventual selection of study sites included the date of project construction, project size (extent of habitat modifications) and proximity to other candidate

projects within specific CE administrative boundaries. All CE reservoir projects which received over 5,000 recreation days of use annually, as listed in the CE's Description of (Calendar Year) 1973, Annual Reports, Civil Work Recreation Resource Management System (RRMS) (Army Corps of Engineer (1974, 1982) were considered as potential candidates for detailed study under the second phase of the contract. A total of 407 projects were included in the RRMS printout. In addition, three projects completed after generation of the 1973 RRMS were added by SFI investigators, bringing to 410 the total number of projects reviewed at the outset of the study.

SFI's initial review of the 410 projects considered the age of each project as indicated by the first year of reservoir operation. It did not become mandatory for construction agencies to request comments and recommendations from Federal and State wildlife agencies until passage of the 1946 amendment to the 1934 Act which, when amended for the final time in 1958, became the Fish and Wildlife Coordination Act. As the average delay between publication of fish and wildlife evaluation reports and reservoir completion was approximately six years, the 138 CE projects impounded prior to 1953 (1946 + six years delay) were eliminated from further consideration.

The magnitude of the impact of each reservoir project on aquatic and terrestrial natural resources is related, in part, to the number of acres impounded. Projects which result in little new water acreage affect fish and wildlife resources to a much lesser degree than projects which result in significantly increased flooded areas. Considering this relationship, SFI eliminated from further evaluation some 124 projects (primarily navigational locks and dams) with minimal new water area. The remaining projects, those completed since 1953 which resulted in significant habitat modification, totaled 148. However, 28 of these projects were considered poor candidates because of adverse interacting factors of age and size in comparison with other projects in or near the same CE District. These 28 projects were therefore not subjected to further screening.

Second-level screening for the 120 projects which survived initial review was essentially an appraisal of the depth of pre-construction fish and wildlife data and predictive evaluations which were prepared and provided by fish and wildlife agencies during the planning process for each project. Recommendations as well as impact predictions, prepared to guide mitigation and enhancement of fish and wildlife resources, are presented in reports prepared by the FWS in cooperation with the States.

SFI found that no comprehensive collection of pre-impoundment reports has been maintained by any of the affected agencies. The FWS and CE files (including the desired reports) are routinely transferred to the Federal Records Center located in Suitland, Maryland, and then as appropriate, transferred to the National Archives in Washington, D.C.

Only a few incidental documents on individual reservoir projects are maintained at FWS or CE headquarters in Washington, D.C. The desired records stored at the Federal Records Center were not catalogued and were scattered at widely separated locations within that immense storage

facility. SFI concluded that the time necessary to conduct the painstaking search that would have been required to locate the desired documentation for each project at the Center was considered prohibitive.

The only alternative was to obtain copies of the desired reports from the various offices of the FWS and CE. SFI project personnel knew that discussion of each of the candidate reservoir projects with as many knowledgeable field personnel as possible would add greatly to the study results. Therefore, it was decided to acquire pre-construction planning reports during personal visits to the field offices. Over several months, project personnel visited all six Regional FWS offices and selected Area offices. The FWS's National Reservoir Research Program headquarters in Fayetteville, Arkansas was also visited for a review of their considerable files. Ten CE Division offices were visited. After visiting 18 field offices, and corresponding with many additional FWS and CE field offices, a nearly complete library of the pertinent pre-impoundment predictive fish and wildlife data was assembled for the 120 reservoir projects. The accumulated reports, documents, and correspondence for each reservoir project were reviewed to ascertain the extent to which the preconstruction fish and wildlife resources were described and to determine the quality and comprehensiveness of the pre-impoundment predictive information. Particular attention was paid to the relevancy of discussion of expected resource loss or gain as a result of project construction.

Following completion of the review, SFI project personnel concluded that the pre-impoundment information was sufficiently complete to permit post-impoundment comparative studies for 78, or 65 percent, of the 20 project files reviewed (Table 2). Pre-impoundment files determined to be inadequate were judged so due to incomplete treatment of the subject, or because the presentation was so general in nature as to preclude post-impoundment determination of their predictive value.

The National Recreation Lakes Study Commission would be required to perform this exact same exercise for not only Corps of Engineer lakes but also those managed by the Tennessee Valley Authority, the Bureau of Reclamation, the Bureau of Land Management, the Bureau of Indian Affairs, the Fish and Wildlife Service, National Park Service, National Forest Service, the Department of Defense, etc. This exercise would require several years to perform and require approximately \$4.5 million in order to meet the exact language of P.L. 104-33. Of particular interest is the SFI finding regarding provision of recreation facilities. Since passage of the Flood Control Act of 1944 (P.L. 78-534), provision of public access to lands and waters at CE water development projects has been established agency policy. The subject legislation

authorizes the CE to construct, maintain and operate public use and recreational facilities at CE projects. SFI concluded that CE provided boat ramps and general access facilities at all of the projects that they reviewed.

II. Staff Survey of Federal Man-made Lake Recreational Facilities

At the July 20-21, 1998 meeting, Commissioners requested that facilities at Federal man-made lakes be surveyed to determine if they were in compliance with their original authorization and that the staff obtain additional information regarding maintenance backlog, operational costs, and planned construction.

Using a random number generator, we developed a list of Federal lakes where visitation and facility information was available from the 490 lakes which have 1,000 or more surface acres. Equations developed by Cochran (1977) were employed to determine the sample size required for various precisions.

Relative Precision

Alpha Level (plus/minus 5%)

Required Sample Size

95 %

5%

221

90%

5%

84

85%

5%

43

80%

5%

Due to time and manpower constraints, a relative precision of 80 percent was employed. The questionnaire (see attachment) was developed and sent to 40 managers on August 11, 1998, requesting a response within 30 days. Staff received responses from 30 lake managers by October 21, 1998. The summary of that data is as follows:

- Forty-seven percent of Federal man-made lakes had the same amount of recreation facilities as was originally authorized. Forty-three percent had more recreation facilities. Ten percent had fewer facilities than the original authorization.
- The average recreation facility backlog is \$921,000. We estimate that the total backlog at all of the Federal man-made lakes is in excess of \$800 million.
- The average amount spent on Operations and Maintenance is \$794,000 annually.
- Fifty-three percent of Federal man-made lakes are not planning to construct or rehabilitate existing facilities between now and the year 2010. Seventeen percent are planning to rehabilitate existing facilities. Thirty percent are planning to construct new facilities.

III. Projected Demand For Recreation Associated With Federal Lakes

Recreation demand for public freshwater lakes and reservoirs is increasing nationally and is especially high in areas where there are few natural lakes (Jones 1996). Increasing human population and the construction of highway access to these lakes has led to a rapid increase in their recreational use. Although these lakes and reservoirs were constructed for flood control, irrigation, hydropower, and public water supply, they are used heavily for fishing, boating, swimming, and non-water related uses such as camping, hiking, picnicking, birdwatching, and aesthetics.

Aquatic recreation and associated tourism generated substantial revenues for local and regional economies. The U.S. Army Corps of Engineers (CE) estimated that 380 million visitors to their reservoir in 1994 spent over \$12 billion on goods and services related to recreation. On numerous reservoirs recreation provides the greatest economic benefit. The current use is projected to increase dramatically over the next several decades. CE (Jackson, et al. 1996) also states that an important factor affecting increased projected demand for recreation programs at Federal man-made lakes is their close proximity to U.S. population centers. The International Association of Fish and Wildlife Agencies also confirms this finding. Their National Recreation Boating Needs Assessment Survey documents that 72 percent of all recreational boating occurs within 50 miles of the boater's home. The U.S. Forest Service's Regional Demand and Supply

Projects for Outdoor Recreation (English, et al. 1993) contains projections for participation in various forms of recreation for the next five decades. (Table 1).

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**Table 1. Types of Activity and Projected Participation in Recreational Activities¹⁴
(Number of Trips in Millions)**

Activity	1987	2000	2010	2020	2030	2040
Fishing ¹⁵	35.6	37.4	39.3	41.2	43.3	45.4
Canoeing	39.7	44.9	50.0	55.6	62.3	67.0
Swimming	238.7	250.6	263.0	279.0	296.0	308.0
Rafting	9.0	9.9	12.2	14.8	19.4	23.0
Boating	219.4	232.6	243.5	256.7	270.0	278.7
Waterskiing	107.4	119.2	130.0	140.7	151.4	159.0
Sailing	35.0	50.1	65.8	83.0	102.6	117.3
Picnicking	262.1	283.1	306.7	330.2	356.5	377.4
Camping	60.5	72.6	82.9	93.8	104.7	112.5
Wildlife Observation	69.5	80.6	91.0	101.4	112.6	121.0
Hiking	91.1	119.3	146.7	180.4	222.3	266.9
Photography	42.1	51.8	60.2	69.5	79.2	86.3
Jogging	83.7	111.3	136.4	164.9	195.9	219.3

¹⁴ English, Donald; Carter Betz J. Mark Young; John Bergstrom, and Ken Cordell, 1993. Regional Demand and Supply Projections for Outdoor Recreation. U.S. Department of Agriculture, Rocky Mountain Forest and Range Experiment Station, Fort Collins, Colorado

¹⁵U.S. Fish and Wildlife Service, Washington, D.C. 1991 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. The numbers expressed are for anglers 16 years of age and older. Fishing is projected to increase by five percent per decade.

Task 7
Executive Summary
**Determine Best Methods for Establishing Social,
Environmental, and Physical Carrying Capacities**

In order to look at ways to enhance recreation opportunities at recreation lakes, the Commission must be aware of the tools managers use to assess whether they have the right mix of recreation uses and whether they have opportunities to expand. Outdoor recreation managers must ultimately make value judgments about the types of opportunities to be provided. Carrying capacity is one of the tools that managers currently use to assess whether recreation opportunities can be expanded at an existing area.

The Commission staff completed a literature review to identify existing methods for establishing the social, environmental, and physical carrying capacity of recreation areas that are in use today and to determine whether there might be a need to make recommendations to the Commission on this subject. The Commission was not charged in the Act to identify or recommend the best methods for determining carrying capacity.

Carrying Capacity

Water resources, especially those of constructed lakes, are inherently limited in supply. They are used for multiple purposes, such as for municipal and industrial water supply, wastewater disposal, hydroelectric power, irrigation, fishing, boating, and recreation. These uses can and do conflict with one another at times. All types of activities cannot be expanded on a single body of water without affecting other uses and potentially creating controversy. As conflicts over different uses arise and heavy demands threaten resource health, resource managers face the challenge of balancing competing water uses.

Carrying capacity is one of the most written-about areas in the recreation management field. The idea of carrying capacity, a concept borrowed from other resource specializations such as wildlife management, implies that specific land areas have a single fixed, finite, and calculatable capacity that can be determined and managed. Early recreation specialists had hoped for a simple formula to calculate capacities in terms of recreation visits, but too many variables are involved to make this determination a simple and straightforward “cookie cutter” process. More recent research on carrying capacity has become focused on the challenge of integrating human values, needs, preferences, and behaviors into resource management decisions.

Because recreation use inevitably produces change in both the social and environmental setting, the major task for managers becomes identifying the location, type, and level of change considered appropriate and acceptable in an area and determining management actions that are consistent with protecting an area from changes in excess of those judged acceptable. Thus, the state of the art of carrying capacity has evolved from an analogy to biological resources (range and wildlife) to integrating social science concepts into management decisions. Thus, there is no single capacity inherent to any given area. There may be as many potential capacities as there are combinations of impact parameters and types of experiences offered.

Carrying capacity, then, is a set of conditions - physical, biological, social, and managerial - to be managed for on a particular area, rather than as a calculation of limits on visitor numbers. A current definition of carrying capacity would be: “a determination of the type and level of visitor use that can be accommodated while sustaining the desired resource and social conditions that complement the purposes of a unit and their management objectives.” Inherent in this definition is the development of management objectives specifying appropriate resource and social conditions.

The Commission staff has identified several models for carrying capacity that follow the approach of identifying indicators of quality and their associated standards, and acceptable conditions for recreation areas, so that indicators of quality can be monitored over time, and management actions taken when indicator variables are not within specific standards. They include: Limits of Acceptable Change (LAC); Visitor Impact Management (VIM); Carrying Capacity Assessment Process (C-CAP); Quality Upgrading and Learning (QUAL); Visitor Activity Management Process (VAMP); and the Visitor Experience and Resource Protection (VERP).

Within these models, managers may use a number of general strategies to address recreation use impacts and to remain within desired qualities of resource and social conditions. They include: increasing the supply of recreation opportunities, areas, and facilities to accommodate demand; reducing visitor use at specific sites, in individual management areas, or throughout the park; modifying the character of visitor use by controlling where the use occurs, when the use occurs, what type of use occurs, or how visitors behave; altering visitor attitudes and expectations; and modifying the resource base by increasing the durability of the resource or maintaining/rehabilitating the resource.

Conclusion

In summary, the Commission staff has completed a literature review and discovered that carrying capacity is not a simple manipulation of numbers of acres and numbers of visitor use, nor is it a single, fixed, finite, calculatable capacity. Carrying capacity analysis cannot be accomplished on a broad-scale basis, but rather must be done on an individual, site-specific basis. A site-specific carrying capacity analysis is an important prerequisite to undertaking any recreation improvements or expansions.

The Commission staff also identified six methods for determining carrying capacity that involve understanding the complex relationships between visitor use and environmental and social impacts, and defining desired or acceptable qualities of resources and social conditions and focus on developing management objectives and identifying indicators and standards of quality. Central to this approach is integrating social sciences concepts into management decisions by having detailed information from users on preferences, visit characteristics, comparisons to other areas, changes observed and desired, and perceptions of use levels and conflicts.

Task 7 Determine Best Methods for Establishing Social,

Environmental, and Physical Carrying Capacities

Introduction

Public Law 104-333 requires the National Recreation Lakes Study Commission to “develop alternatives to enhance the opportunities for such [recreation] use by the public,” to “evaluate the feasibility of enhancing recreation opportunities at federally-managed lakes and reservoirs under existing statutes,” and to “make recommendations on alternatives for enhanced recreation opportunities.” It further requires that “to the maximum extent possible, the Commission shall use existing data and research.”

An integral part of completing this direction is to determine the best methods for establishing social, environmental, and physical carrying capacity for the purpose of determining an appropriate mix of uses, experiences, and quantities. To accomplish this the Commission Staff has completed a literature review for the purpose of identifying current methods and applications on carrying capacity and to make recommendations to the Commission on this subject. This paper contains those findings and recommendations.

Background

Water resources, especially those of constructed lakes, are inherently limited in supply. They are used simultaneously and sequentially for multiple purposes, such as for municipal and industrial water supply, wastewater disposal, hydroelectric power, irrigation, fishing, boating, and recreation. These uses can and do conflict with one another at times. Conflict in use and management of water resources is increasing because the human population is growing, and societal needs are shifting from “survival” issues such as good water quality for public health and industrial growth to quality-of-life issues such as living and engaging in recreation on a clean lake with scenic values (Ungate 1996).

Increased demand for water-based recreation in the United States is reflected in a number of market surveys (Jones 1996). Future projections for recreation activities such as power boating, fishing, waterskiing, and personal watercraft suggest steady growth. Because public reservoirs and the adjacent shoreline may represent the only locally available public recreation lands, users find additional opportunities such as camping, hiking, birdwatching, and picnicking of equal importance.

All types of activities cannot be expanded on a single body of water without affecting other uses and potentially creating controversy. As conflicts over different uses arise and heavy demands threaten resource health, resource managers face the challenge of balancing competing water uses. Satisfactory resolution can be reached only with long-range planning and careful management.

As use of public resources for recreation grows, managers are increasingly faced with the prospect of limiting use to protect the resource, the recreation experience, or both. Managers usually recognize that such limits should be based on the resources’ physical and social carrying capacities (Tarrant and English 1996).

This underscores the importance of having a logical, rational, and defensible process for the purpose of maintaining and improving on the quality of recreation. Quality of recreation is the degree to which opportunities provided meet the diversity of visitor needs. There is no typical visitor and

visitors have many and sometimes conflicting needs and interests. Providing for diverse tastes and needs requires information about those preferences and about how recreationists use the lake (Vogel, et al 1996c).

The idea of carrying capacity, a concept borrowed from other resource management specializations such as range and wildlife management, has been criticized by some researchers as implying that specific land areas have a single fixed, finite, and calculatable capacity that can be determined and managed. However, the concept is more complex in recreation resources management where human needs, preferences, and behaviors also must be addressed. Early recreation specialists had hoped for a simple formula to calculate capacities in terms of recreation visits, but it is evident that too many variables are involved to make this determination a simple and straightforward “cookie cutter” process. (Vogel and Titre 1998, Manning et al 1995).

A current definition of carrying capacity would be a determination of the type and level of visitor use that can be accommodated while sustaining the desired resource and social conditions that complement the purposes of a unit and their management objectives. Inherent in this definition is the development of management objectives specifying appropriate resource and social conditions. Measures of appropriate conditions replace the measurement of maximum sustainable use. Carrying capacity is a set of conditions - physical, biological, social, and managerial - to be managed for on a particular area, rather than as a calculation of limits on visitor numbers (Titre, et al 1996a).

High recreation quality exists when opportunities meet needs of visitors. However, meeting needs is not sufficient. Because visitors to lakes have diverse preferences for physical, social, and managerial conditions, it is necessary to provide a spectrum of opportunities within the portion of the area visitors could reasonably be expected to use during their visits, if the diversity of needs is to be met and satisfaction maximized (Titre, et al 1996a).

Lake managers are charged with the complex task of providing safe and enjoyable recreation opportunities while protecting the natural resources where recreation activities occur. At the same time they must address other important water resource issues such as user conflicts, dispersion of lake access points, new boating recreation developments, and expansion of existing boating recreation facilities. These emerging issues are compounded by such changes as increasing boat traffic (and an associated increase in accidents) and increasing shoreline development of private property adjacent to government or agency-owned shoreline (Vogel and Titre 1998).

All of this means managers must move beyond thinking of carrying capacity for lakes as a number of boats (“this lake can support 1000 boats at a time”) or in terms of space standards (“each boat using the lake requires 10 acres of water”) and that managers should no longer try to find a “magic number” for lakes. Instead managers should put efforts into learning about current conditions; where management and visitors (users) might like them to be, and how to achieve desired conditions (Titre, et al 1996b). Each of the current methods detailed below use this approach.

Current Research and Applications

Carrying capacity is one of the most written-about areas in the recreation management field. But, more than that, it has become a focus for the challenge of integrating human values into resource management decisions. The carrying capacity problem has forced researchers, managers, and users

to work towards an understanding of the ways in which management decisions affect recreation experiences. The result has been a realization that maintaining opportunities for certain kinds of experiences requires the same care and planning as maintaining habitat for certain kinds of plant or animal species. Both are important and valuable, and both easily be threatened or lost (Shelby and Heberlein 1986).

Shelby and Heberlein (1986), in the introduction to their book, state, "Most recently a bibliography by Vaske et al. (1984) identified over 2,000 published and unpublished articles on human impacts in natural environments. In spite of the volume of research that has been conducted, however, 'social carrying capacity remains an elusive concept' (Graefe et al 1984b). Stankey (1980:6) states that, 'significant conceptual and methodological problems remain,' while Burch (1982:221) goes further in suggesting that 'research methodology, theory, and findings remain at a primitive level'."

In 1984 an entire issue of the periodical *Leisure Sciences* was devoted to papers on the theme issue of Social Carrying Capacity (Field and Van Doren, co-editors 1984). In the introduction to this issue, guest editor Richard Schreyer (1984) says, "Few people have been able to come to an agreement about just what the concept [carrying capacity] means." He continues, "... there is serious question as to whether carrying capacity is a 'real' concept at all." Also, "While disagreeing on the nature of carrying capacity, authors have been universal in pointing out that there is no technical solution to the problem, but rather it has to fit in a context in which human values and subjective evaluations of desirable conditions are to be formally recognized." He concludes, "Virtually every issue dealing with the application of recreation ... is closely tied to human values."

Through a literature review, Stankey and McCool (1984) concluded that virtually no studies reviewed report a statistically significant association between satisfaction and different independent variables related to density of recreation use. Generally the low statistical association is a result of:

1. Self-selected nature of recreation participants,
2. Shifts in clientele and experience definition,
3. Multiple satisfactions which motivate or underlie recreation participation,
4. How the concept of satisfaction has evolved and is measured,
5. Lack of control of the saliency of use levels or encounters in social carrying capacity studies,
6. The role of expectations and preferences in influencing response to encounters.

Because of the lack of success in implementing a carrying capacity framework focused on the traditional concern with use level, research attention has shifted to a reformulated model of capacity. This new approach rests on the notion that recreation use inevitably produces change in both the social and environmental setting (Lime 1976). Thus the major task for managers is to identify the location, type, and level of change considered appropriate and acceptable in an area and the actions consistent with protecting an area from changes in excess of those judged acceptable (Stankey and McCool 1984).

Thus, research and the state of the art of carrying capacity have evolved in contemporary research from an analogy to biological resources (range and wildlife) to integrating social sciences concepts into management decisions. An extensive literature review done by Graefe, et al. (1984c) shows that neither a magic number nor a method for arriving at a magic number has emerged after 20 years of research. Graefe says, "Thus, there is no single capacity inherent to any given area. There may be as many potential capacities as there are combinations of impact parameters and types of experiences offered."

Relevant research findings that both describe the difficulty of relating to the biological sciences in a “cookie cutter” manner and emphasize the relativity to the social sciences include the following:

- o People engage in recreation to satisfy multiple expectations and with the expectation that their action will lead to certain rewards (Driver and Tocher 1970).
- o Specific expectations people have for a given experience are influenced by individual and environmental factors such as the amount and type of previous experience, the degree of communication with others, situational variables and personality characteristics (Schreyer and Roggenbuck 1978).
- o Because the essence of recreation is choice, the motivations for participation in a given activity may vary considerably. Certain expectations tend to be associated with particular activities, but considerable variation in expectations may be found among individuals engaged in the same activity or using the same environment, or even within a given individual at different times (Schreyer and Roggenbuck 1978).
- o Visitors compare perceived outcomes they receive from an experience with the rewards they expect to receive (Peterson 1974).
- o Overall satisfaction in any situation results from the discrepancies that exist for each expected reward (Lawler 1973).
- o Negative evaluations result when the presence of other individuals interferes with the recreationist's goals (Prohansky et al 1970).
- o Perceptions of crowding occur when the level of social interaction exceeds that desired by the individual (Gramann 1982).
- o Understanding quality in the recreation experience requires an understanding of the goals or types of experiences sought by visitors (Graefe, et al 1984c).
- o Studies show there is no single predictable response of visitors to varying use levels. Rather, visitors are affected by a series of interrelated impacts which result from recreation use of natural areas (Graefe, et al 1984c).
- o Whether or not an area is crowded is a subjective judgement of an individual, not an objective fact. Consequently, it will vary across individuals depending on a variety of social and psychological factors (Graefe, et al 1984c).
- o Studies suggest that individuals are more sensitive to clear evidence of other humans (e.g. litter) than to other perhaps more serious impacts on site conditions such as eroded, rutted trails. Thus, visitors may respond to a resource disturbance more negatively if they attribute the cause to be human intervention as opposed to natural processes. On the other hand, visitor perceptions may also be related to their own style of use (Stankey 1973).

- o Satisfaction cannot be predicted from user density or contact variables because visitors' multiple expectations may be affected in different ways by use levels and because changes in attitudes and/or behavior may cause satisfaction to remain high under varying levels of density (Graefe, et al 1984c).
- o Individuals may take certain steps to avoid environments where crowding conditions exceed their tolerances. Individuals vary in their response to increasing recreation use (Graefe, et al 1984c).
- o It is impossible to satisfy all visitors with a single management strategy. Attempting to do so would only satisfy the "average" user (Graefe, et al 1984c).
- o Response of individuals to contacts with others may also vary according to the types of activities and behavior encountered. An individual may be quite tolerant of contacts with hikers and extremely intolerant of contacts with off-road vehicles. It depends on social and personal norms visitors use to evaluate the appropriateness of specific behaviors (Graefe, et al 1984c).
- o Conflict results when individuals with contrasting standards of behavior interact (Jacob and Schreyer 1980).
- o Differences in personal standards may exist among participants engaged in the same activity as well as people participating in different activities (Graefe, et al 1984c).
- o Conflicts also arise when individuals who have specialized in a certain activity encounter recreationists participating in less intense activities (Graefe, et al 1984c).
- o Evaluations of recreation experiences are influenced by the characteristics of the environment and by users' perceptions of the particular setting (Graefe, et al 1984c).
- o The label assigned to a given area may also affect users' experience evaluations. Hendee, et al. (1978) speculate that simply classifying an area as wilderness may give the resource a certain identity which appeals to visitors. Becker (1981) suggests that designating rivers as wild and scenic may serve to increase recreation use levels on protected rivers. Anderson (1981) showed that environmental perceptions vary when individuals have knowledge of a scene's randomly assigned official designation. Higher ratings of scenic beauty were obtained for areas designated as wilderness or national park; as opposed to commercial timber stand or leased grazing land. Shelby (1981) found that encounter norms vary according to the definition of the area, with wilderness users being the least tolerant and undeveloped recreation area visitors being the most tolerant (Graefe, et al 1984c).
- o Implementation of social carrying capacity requires an understanding of how recreationists impact each other and the environment, and the factors related to the occurrence of these impacts (Graefe, et al 1984c).
- o The relationship between use and recreational quality depends on motives underlying participation (Stankey and McCool 1984).

- o The type of group encountered has a significant effect on expressed preferences for encounters independent of the number involved (Stankey and McCool 1984).
- o Shelby and Nielson (1975) found no evidence that levels of contact ever related to perception of crowding or that perceived crowding was related to satisfaction.
- o Instead of a single predictable response to increasing recreation use, an interrelated set of impact variables are normally operative. Some forms of impact (e.g. contacts or perceived crowding) are more direct or obvious than others (e.g. displacement or altered experiences). To understand how the experience in a given area is affected by recreation use however it is necessary to consider the range of possible impact variables (Graefe, et al 1984c).
- o The relationships between use levels and various impact variables are neither simple nor uniform (Graefe, et al 1984c).
- o One of the most important factors affecting use/impact relationships is the inherent variation in tolerance among individuals and user groups. A given scenario may enhance the experience for some, have no effect on others, produce dissatisfaction for some, and cause still others to be displaced to alternate areas (Graefe, et al 1984c).
- o All types of contacts between visitors do not have the same effects. Even the response of a particular individual to a particular type of contact may vary depending on the location and time of contact (Graefe, et al 1984c).

By identifying indicators of quality and their associated standards, acceptable conditions for park and recreation areas can be identified (Manning, et al, 1995). Carrying capacity can then be implemented through a monitoring and management program. Indicators of quality can be monitored over time, and once standards have been reached, carrying capacity has been reached as well. A management program is needed when indicator variables are not within specific standards. This approach is central to contemporary carrying capacity methods including: Limits of Acceptable Change (LAC)(Stankey, et al 1985), Visitor Impact Management (VIM) (Graefe et al 1990), Carrying Capacity Assessment Process (C-CAP)(Shelby and Heberlein 1986), Quality Upgrading and Learning (QUAL)(Chilman et al 1990, 1995), Visitor Activity Management Process (VAMP) (Parks Canada 1985, 1991) and the Visitor Experience and Resource Protection (VERP)(National Park Service 1993, 1997).

General strategies that managers can use both to address recreation use impacts and to remain within desired qualities of resource and social conditions include (National Park Service 1997):

- o Increase the supply of recreation opportunities, areas, and facilities to accommodate demand
- o Reduce visitor use at specific sites, in individual management areas, or throughout the park
- o Modify the character of visitor use by controlling where the use occurs, when the use occurs, what type of use occurs, or how visitors behave
- o Alter visitor attitudes and expectations

- o Modify the resource base by increasing the durability of the resource or maintaining/rehabilitating the resource

Within the six strategies, there are many specific management actions or tactics that can be used. These tactics fall into five general categories (National Park Service 1997):

- o Site management (e.g. facility design, use of vegetation barriers, site hardening, area/facility closure)
- o Rationing and allocation (e.g. reservations, queuing, lotteries, eligibility requirements, pricing)
- o Regulation (e.g. the number of people/stock, the location or time of visits, activity, visitor behavior, or equipment)
- o Deterrence and enforcement (e.g., signs, sanctions, personnel)
- o Visitor education (e.g., promote appropriate behavior, encourage/discourage certain types of use, provide information regarding use conditions)

Summary/Conclusions

Conclusions drawn by several of the leading researchers cited in this paper include:

“It is evident that outdoor recreation managers must ultimately make value judgments about the types of opportunities to be provided ... but value judgments should not be arbitrary or implied. They should be an explicit and visible part of a well-documented planning process. In this way management judgments might be developed in a more orderly and rational way, subject to public and professional participation and review (Manning 1995).”

“Carrying capacity will sometimes require limitations on public use of parks and recreation areas although it does not automatically imply use limits. Visitor use levels may not directly affect some indicators of quality. Use limits may be an undesirable management alternative from a public policy standpoint and other management approaches may be more appropriate such as use allocation and rationing. This approach is generally controversial. Both efficiency and equity issues must be considered. Application will bring management a host of new challenges (Manning, et al 1995).”

"Carrying capacity, in my view, is not a *scientific concept*, but a *management notion*. The research role in carrying capacity is describing the social and ecological consequences of alternative use levels, thus providing the opportunity for managers to judge whether these consequences are consistent with area management objectives. With each change in objective the acceptable and appropriate social-ecological milieu also changes. Thus while research can help managers who are concerned with carrying capacity it cannot supply answers about what the carrying capacity of a site *is or should be* (Burch 1984)".

“Perhaps the greatest contributions social science can make is to remind resource managers that we live in a world of choice and possibility rather than determinism, to provide them with

frameworks for improving decision making and policy formulation when decisions and policies are ultimately based on political and judgmental strategies (Becker, et al 1984).

In summary, carrying capacity has evolved from the original emphasis on use limits to understanding the complex relationships between visitor use and environmental and social impacts, and defining desired or acceptable qualities of resources and social conditions. The primary emphasis of carrying capacity should be placed on developing management objectives and identifying indicators and standards of quality. Central to this approach is having detailed information from users on preferences, visit characteristics, comparisons to other areas, changes observed and desired, and perceptions of use levels and conflicts. Methods such as Limits of Acceptable Change (LAC), Visitor Impact Management (VIM), Carrying Capacity Assessment Process (C-CAP), Quality Upgrading and Learning (QUAL), Visitor Activity Management Process (VAMP), and Visitor Experience and Resource Protection (VERP) utilize this approach.

Appendices A through D contain more details and references for LAC, QUAL, VERP, and C-CAP. Appendix E contains an adaptation of the Recreation Opportunity Spectrum (ROS) for water-based recreation on lakes, and Appendix F contains a summary of user information necessary for input into these processes.

Concepts for Commissioners to Consider

The Commission staff suggests that the Commissioners consider the following concepts:

1. Carrying capacity analyses cannot be done on a broad-scale basis as part of an overall National Recreation Lakes Study Report, but rather must be done on an individual site-specific basis.
2. A site-specific carrying capacity analysis is an important prerequisite to undertaking any recreation improvements or expansions.
3. Carrying capacity is not a simple manipulation of acres and use coefficients, nor is it a single fixed, finite, calculatable capacity.
4. Analyzing carrying capacity is an important tool in resource management planning that should be used in evaluating whether recreation improvements or expansions at Federal lakes should be undertaken. The Commission might consider recommending that state-of-the-art methods which analyze relationships between visitor use and desires, and environmental and social impacts such as those reviewed in this paper should be used, rather than older, less sophisticated models that manipulate number of acres and use coefficients.
5. Analyzing carrying capacity is only one consideration in adequate resource management planning, which must be done in the context of other legal constraints and mandated uses of water in the lake.

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APPENDICES

Appendix A, Limits of Acceptable Change (LAC)

Appendix B, Quality Upgrading and Learning (QUAL)

Appendix C, Visitor Experience and Resource Protection (VERP)

Appendix D, Carrying Capacity Assessment Process (C-CAP)

Appendix E, Recreation Opportunity Spectrum (ROS)

Appendix F, User Input to Models

Appendix A, Limits of Acceptable Change (LAC)
(Stankey and McCool 1984).

The focus of Limits of Acceptable Change (LAC) is on the management of environmental and social conditions identified as desired by managers after completing user s surveys. By comparing the desired conditions with those currently existing, the type, extent, and level of needed management actions can be determined. An important difference between the LAC framework and carrying capacity models previously attempted is that LAC focuses on management of conditions rather than use levels per se. This approach gets around such problems as the lack of relationship between density and satisfaction. It recognizes that it is the condition of the resource and social setting that is important. It manages impacts of use but not use directly. When conditions reach or are close to those identified as minimally acceptable, the associated use level would represent the area's capacity although other management alternatives such as reducing per capita impact could also be employed.

The general process is as follows:

1. Identify issues and concerns
2. Define and describe opportunity classes
3. Select indicators of resource and social conditions
4. Inventory existing resource and social conditions
5. Specify standards for resource and social indicators for each opportunity class
6. Identify alternative opportunity class allocations reflecting area issues and concerns and existing resource and social conditions
7. Identify management actions for each alternative
8. Evaluate and select preferred alternative
9. Implement actions and monitor conditions.

Appendix B, Quality Upgrading and Learning Process (QUAL)

(Chilman, et al 1995).

The QUAL process places emphasis on two aspects of quality of visit experiences: the reasons for choice of the specific place for the desired recreation activity and changes observed in the area. The latter is an important visitor attribute if the visitor is a repeat visitor.

An important step in applying this process is to complete an inventory of existing conditions. This systematic measurement and documentation of existing conditions (physical-biological, social, managerial) can then be used as a basis for discussion of desired conditions (management objectives). Examination of conditions on large land or water areas usually shows diverse conditions on various part of the areas, which can then be managed to provide diverse recreation opportunities for different kinds of recreation visitors. This allows visitors more specific choices of visit experiences, and hence higher quality in fulfillment of their preferred experiences.

Social data collection (systematic visitor counts and interviews at specific places) is important for recreational capacity planning, and especially for lake situations. While physical and biological data has often been obtained for recreation areas, very little systematic social data has usually been gathered. Simple, low-cost social data collection procedures for large land and water areas have been developed and tested in various situations. The information does not in itself provide solutions but takes though and discussion of various factors involved.

(Chilman 1983, Chilman et al 1995).

Process is based on three concepts (Vogel and Titre 1998)):

1. Detailed information on existing conditions (inventory) is needed as a basis for determining desired conditions (Washburne 1982).
2. Diverse areas attract diverse visitors and form the basis for management to provide a spectrum of recreation opportunities.
3. Managers must be able to understand and readily communicate information about 1 and 2 above as a basis for discussions about recreation management decisions.

Steps for applying the process are:

Step 1. Management Goal: Quality Recreation

- a. Operational definition of “quality recreation”
 - Provide range of recreation opportunities
 - Zoning different activities in different places
 - Specify management practices by zones
 - Interpret area attractions
 - Survey visitors for perceptions of conditions
- b. Obtain consensus on management goal
 - Determine interest groups involved

- Identify area changes or issues of concern
- Determine appropriate planning process
- Consider level of planning effort needed

Step 2. Inventory Existing Conditions

- a. Reconnaissance of area
 - Maps, preliminary examination of ecological characteristics
 - Special significance or importance of area
 - Examine patterns of use, types of users
 - Examine area history, record, management practices
- b. Comparison of area to other recreation areas
 - Use Recreation Opportunity Spectrum (ROS) land classification system or equivalent
- c. Divide management area into subunits
 - Use Recreation Area Division and Subdivision (RADS) system
 - Identify Travel Pattern Concentrations (TPC) recreation settings and priorities for management attention
- d. Measurements on priority subunits
 - Site analysis of TPC patterns of use, impacts
 - Assess site impacts
 - Visitor observations, counts, interviews

Step 3. Analysis of Alternatives

- a. Locate study area on ROS classes framework (or equivalent)
 - Indicate relative abundance of areas in ROS classes for the region
 - Assess implications of changing study area conditions into another class, in terms of relative abundance
 - Find out what area visitors perceive as the existing range of opportunities for their activity/experience
- b. Determine if there are area aspects of uniqueness or fragility (determined by inventory, visitor perception)
- c. Other factors to consider -- visitor safety, legislative mandates, etc
- d. Public review and discussion

Step 4. Objective setting and Implementation

- a. Select desired recreation opportunities/set of conditions to be achieved or maintained as management objectives (specify indicators of desired social, ecological, managerial conditions to achieve or maintain)
- b. Develop interpretive plan to highlight significance, and direct use to particular places
- c. Select management strategies, techniques, prepare plan
- d. Public review and discussion
- e. Implement strategies/techniques to achieve objective
- f. Communicate progress in achieving programs and objectives

Step 5. Monitoring and Evaluation

- a. Periodic remeasurement of key indicators of desired conditions
- b. Evaluation of indicator data on changes occurring, achievement of objectives
- c. Decisions for management actions to deal with changes to begin process of replanning

The final step is to implement the Service Area and Management Compartment Concept. Service areas are large divisions of a lake that are associated with particular communities, shoreline developments, and boater access points. They can be described as “lakes within a lake” in that each has a character that is distinct from that of adjoining Service Areas. Few people use all or even part of a lake. Most generally do not want to cruise more than 20 minutes or so from their access points. Data can be used to more precisely determine the typical “use area” of boaters who access a lake at different locations. This begins to define Service Areas. Although boundaries are only imaginary and are uncertain and inexact, boaters who access in a particular area can be expected to spend most of their time in that Service Area and perhaps the nearest part of the adjacent area.

The designation of Service Areas establishes circumscribed areas in which to focus thinking about management goals, recreational diversity, and potential management actions. This recognizes that there are important differences in conditions on the lake and in the recreation opportunities offered from one end of the lake to the other. Recognizing these differences is essential to meeting the primary goal of the management of our lakes for recreation -- providing high quality water-based recreation opportunities.

The purpose of establishing management compartments -- and later, specific management goals for these compartments -- is to initiate a management strategy that strives to maintain the desired conditions for specific recreation opportunities on various parts of the lake. Once existing physical, managerial, and social conditions are described, managers can decide whether public interest is best served by attempting to maintain those conditions or by permitting them to change. An important factor in making that determination is the relative abundance or scarcity of the conditions and recreation opportunities within the Service Area. The management goals for compartments specify what conditions will be managed for on specific parts of the lake.

Managers can exert some control over conditions by permitting or prohibiting additional boat access and shoreline development and by closing, upgrading, or expanding facilities. Boating restrictions enforced by the Corps and others, including zoning, designation of no-wake areas, and speed limits, represent a change in managerial conditions and can impact social conditions.

User data identifies the problems or conditions that boaters considered to be having the greatest impact on their boating safety and enjoyment and indicates where these problems were occurring and where they were most acute. The data also identifies the areas of the lake where boaters have found the conditions they desire and consider most congruous with the recreation experiences they seek. Designation of compartments allows reconfiguration of this critical data in reference to particular areas of the lake.

Appendix C, Visitor Experience and Resource Protection (VERP) Framework National Park Service (1993, 1997)

In 1992, in response to the 1978 amendments to the General Authorities Act, the National Park Service made a commitment to develop a visitor use management/carrying capacity planning framework that could be integrated with its general management plan program. Now being tested, the Visitor Experience and Resource Protection (VERP) Framework was developed to address visitor carrying capacity and make sound decisions about visitor use. VERP defines carrying capacity as the type and level of visitor use that can be accommodated while sustaining desired resource and social conditions that complement the purposes of a park and its management objectives. The VERP framework, as envisioned, determines resource conditions and visitor experiences that should be maintained in national park units and sets up a monitoring program to ensure that these experiences and conditions are maintained. The program builds on concepts used by the U.S. Forest Service (Limits of Acceptable Change and Recreation Opportunity Spectrum).

VERP is an analytical process, an iterative and continuous process. VERP is not a quick and easy solution or a one-shot undertaking.

VERP can:

- address problems related to the effects of visitor use on park experiences and resources
- provide supporting rationale for informed, defensible decisions about visitor use
- provide a framework for cost-effectively coordinating planning, research, monitoring and management actions

VERP cannot:

- solve problems unrelated to visitor use
- guarantee 100% scientific accuracy or eliminate the need for good judgment
- provide program money for research and development

The process consists of nine interlinked elements:

Framework Foundation

1. Assemble an interdisciplinary team
2. Develop a public involvement strategy
3. Develop statements of park purpose, significance, and primary interpretive themes; identify planning mandates and constraints

Analysis

4. Analyze park resources and existing visitor use

Prescriptions

5. Describe a potential range of visitor experiences and resource conditions (potential prescriptive zones)
6. Allocate the potential zones to specific locations within the park (prescriptive management zoning)

Monitoring and Management Actions

7. Select indicators and specify standards for each zone; develop a monitoring plan
8. Monitor resource and social indicators
9. Take management action

Applying VERP can result in a more proactive approach to zoning and to management of visitors, better documentation supporting decisionmaking, better evaluation and justification of needs and locations for park infrastructure and development, better understanding of needed and social research and applications of such research; identification of short-term and long-term management actions, and a “win-win” integration of resource protection and visitor use.

Application also identifies indicators that can be used to monitor visitor experiences and resource conditions and to set standards that trigger management action ensuring parks meet their objectives. These resource and social indicators alert managers of specific problems that need attention.

Though new, the process has been applied in Arches National Park, the Yellowstone/Grand Teton Winter Use Management Plan (a task force staffed from the two parks plus six surrounding National Forests), and is now being applied for new general management plans for Mount Rainier, Isle Royale, and Zion National Parks and in site-specific applications at Acadia and Denali National Parks.

Appendix D, Carrying Capacity Assessment Process (C-CAP)
(Shelby and Heberlein 1986)

This model is similar to VERP and LAC. Steps include:

1. Organize and evaluate background material - existing information on geographic context, management structures, political climate, use patterns and trends, etc.
2. Identify in general terms the type of experience opportunity to be provided - review of legal mandates, agency guidelines, and management objectives, as well as the spectrum of recreation opportunities possible within resource capabilities.
3. Identify important impacts - ecological, physical, facility, or social. The task here is to specify current or anticipated problems or the unique characteristics or values of the resource.
4. Collect data from users - on type of experience opportunity to be provided, evaluative standards, and existing conditions.
5. Develop management alternatives which would limit impacts to acceptable levels - including use limits and other management strategies to control impacts.
6. Select a management strategy. If the strategy includes a use limit, that limit is the carrying capacity
7. Monitor impacts to ensure that they fall within acceptable limits and adjust management policies if necessary.

Appendix E, Recreation Opportunity Spectrum (ROS)
(Driver and Brown 1978)

The Recreation Opportunity Spectrum (ROS) is a classification system that provides categorization of recreation experiences defined in terms of a combination of activity, setting, and experience attributes.

Vogel, Jim and John P. Titre. 1998. Managing Lakes for a Spectrum of Diverse Recreational Opportunities. Unpublished manuscript. Department of Natural Resource Recreation and Tourism. Colorado State University. 12 p.

Recreation Opportunity Spectrum for Water-based Recreation on Lakes

<p>Class I: High Density Boating/ Highly Developed Areas</p>	<p>Typically contain at least some large areas of open water (within main basin of lake or large coves).</p> <p>Considerable shoreline development with many structures (e.g., docks, ramps, marinas, homes, restaurants) visible. Adjacent shoreline communities or Subdivision may be present.</p> <p>Contains several of the lakes largest marinas, public ramps, and parks. Likely to be the portion(s) of the lake closest to major population centers or highway access.</p>	<p>Typically high or very high density boat traffic (~15 or <10 surface acres available per boat). In open areas, boats will be traveling in many directions.</p> <p>Several types of watercraft are often using the area simultaneously (e.g., runabouts and ski boats; pontoon boats; cabin cruisers; house boats; small and large sailboats; personal watercraft).</p> <p>Often the site of the greatest number of boater conflicts associated with high density traffic and diversity of user types.</p>	<p>Typically, the greatest presence of law enforcement (water patrol) on the lake will be in these areas.</p> <p>May be the portions of the lake that account for most boating citations and boating accidents.</p> <p>Restricted such as no-wake zones will be present near ramps, marinas and docks. Boats may be excluded from beach and popular shoreline swimming areas.</p>	<p>Boaters will likely see and hear other boats at all times.</p> <p>Boats may congregate near particular shoreline attractions (cliffs, rocks, swings, beaches) in groups of 10 or more.</p> <p>While underway, boater will find it necessary to maintain constant vigilance for other boat traffic that may cross their path or overtake them.</p> <p>Will likely be choppy much of the time, with numerous wakes, making cruising and sitting in the boat while stationary less comfortable.</p>
<p>Class II: Moderate Density Boating/ Moderately Developed Areas</p>	<p>Much of the shoreline may appear undisturbed or in a natural state, although some large parks, marinas, or public access areas will probably be present.</p> <p>May contain some large areas of open water. Most often composed of main arms of a lake, of moderately wide portions of the main stem of the lakes in</p>	<p>Peak use traffic density is typically moderate (15-20 surface acres available per boat), although it may exceed on some occasions.</p> <p>Conflicts between boaters will likely be less common than in Class I areas due to less traffic and more regular travel patterns.</p>	<p>Law enforcement presence (water patrol) will be fairly regular but may be less visible than on Class I areas.</p> <p>May contain some no-wake zones near marinas and access points or to keep moving traffic from popular fishing areas,.</p>	<p>Typically a transition area between or adjacent to Class I areas, many boaters may be traveling through area between other destinations.</p> <p>May be main use area for boaters desiring to avoid heaviest traffic but who want to remain in open water to cruise or water ski.</p> <p>Boaters may find areas with relatively</p>

Class III High Use/ Stationary Boat Areas	These are typically small to moderate sized coves (30 to 50 surface acres) or the upstream (back) portions of larger coves or lake arms.	Boat density may be such that less than 10, or even 5 acres of water are available per boat. However, because these boats are anchored or stationary while in these areas, conflicts are few.	All or part of these coves may be designated no-wake. Patrol presence is typically light, unless problems (e.g., drinking, noise) have been encountered with the large groups of boats that may congregate in the area.	These areas (some time termed escape coves) offer opportunities to avoid heavy choppy water, wakes, and the noise of cruising boats and personal watercraft. Boaters main purpose in using these areas is to relax in their boat in comfort, and perhaps to engage in other stationary-boat activities such as swimming, snorkeling, and fishing. Boaters express preference for natural appearing shorelines and natural scenery in these areas.
	There may be minor shoreline development (docks, piers, homes visible) but no marinas or other major boater access areas. Most of the shoreline will appear natural or undisturbed.	Large houseboats or cabin cruiser may congregate here and tie (:raft") together or may be the center of large rafts including several smaller boats.		

<p>Class IV: Low Use/ Underdeveloped Areas</p>	<p>The shoreline in these areas is mostly or entirely undisturbed or natural and few structures are visible from the water. The surrounding land areas provide primarily natural scenery.</p>	<p>Use of these areas is low or very low, even at peak use times. Typical boat traffic densities allow more than 30 acres, and sometimes well over 100 acres, of surface area per boat.</p>	<p>Due to the low amount of use, difficult access, and sparse pleasure boat use, these areas may receive little water patrol attention. (However, enforcement of fishing regulations and creel surveys will likely be focused on these areas.)</p>	<p>These areas offer boaters opportunities to avoid high density boat traffic, or allow fishermen to avoid pleasure boat traffic entirely. The opportunity to experience solitude, tranquility, and quiet is important to most of the users of these areas.</p>
	<p>These areas are often narrow or shallow, or have numerous underwater obstructions (rocks, stumps, etc.)</p>	<p>Less convenient lake access, rough roads, small, primitive launch facilities, and shallow water or obstructions may discourage use by other than small fishing boats and hand launched boats (e.g., canoes).</p>		<p>Boaters may also be attracted to the mostly undisturbed scenery and opportunities for primitive camping, birdwatching, or other nature and wildlife-related activities.</p>
	<p>Access to these areas is typically from outside the area or from primitive launch facilities within the area. Road access will require most visitors to drive a considerable distance and may not be suitable for those towing larger boats.</p>	<p>Conflicts are few in these areas due to the low amount of use and the similarity of boater types present.</p>		

Appendix F, User Inputs to Models

(Titre, et al., 1997)

As part of a carrying capacity study, the following information should be gathered from recreation users using surveys in order to characterize and understand user preferences, visit characteristics, comparisons to other recreation areas, changes observed and desired, and perceptions of use levels and conflicts:

1. Visit characteristics
 - length of experience on the lake
 - distance traveled to lake
 - frequency of visits
 - length of present visit (ramp users)
 - type(s) of watercraft used
 - activities participated in
 - portion of recreation day devoted to specific activities
2. Spatial use characteristics (with lake map)
 - locations where activities were participated in
 - characteristics and location of favorite places
 - characteristics and location of avoided areas
3. Comparison to other areas
 - alternative boating locations
 - reasons for choosing to come to lake for present visit (ramp users)
 - best features of lake
4. Changes occurring and desired
 - changes noticed and effect of those changes
 - changes desired
5. Perceptions of use levels and conflicts
 - number of boats expected to see while boating on lake
 - number of boats preferred to see while boating on lake
 - problems/conflicts with other boaters
6. Additional comments
 - general comments, suggestions, continuation of responses to open-ended questions, or comments on issues not covered

A systematic process for gathering and utilizing visitor data for recreation management decisions (Vogel and Titre 1998)) is as follows:

Step 1. Design (with managers)

1. Recruit/select study supervisor

2. Identify concerns/questions to be answered by the study
3. Examine study area, determine user groups and sampling points
4. Develop a survey sampling plan and boat count schedule
5. Develop survey instruments and count forms
6. Prepare press release for local news media

Step 2. Data collection

1. Train field data collectors in exit interview and count methods
2. Maintain quality control during data collection
3. Train and supervise data collectors in data coding and entry
4. Prepare bi-weekly summary reports

Step 3. Data analysis and reporting

1. Summarize and categorize cleaned and edited survey data
2. Prepare maps of spatial data from surveys
3. Tally count results and prepare count results map
4. Prepare preliminary report for manager's review
5. Discuss report, modify as needed
6. Prepare final technical report for distribution

Step 4. Discussion of data, follow-up with managers

1. Discuss to determine whether data and data collection procedures are clearly understood
2. Discuss implications of data for priority management issues
3. Discuss and designate Service Areas and Management Compartments and discuss management objectives for compartments
4. Discuss needs for additional or other kinds of data, ways to improve data collection and sample
5. Design data collection for following year

Tasks 8 & 9

Revenue Sources for Managing Recreation Resources

The National Recreation Lakes Study Commission has been charged by law to “. . . evaluate the feasibility of enhancing recreation opportunities at Federally-managed lakes and reservoirs under existing statutes and consider legislative changes that would enhance recreation opportunities.”

It was necessary to research existing and potential revenue sources for planning, developing and managing Federal recreation resources, in order to understand how Federal recreation is currently funded and to explore innovative approaches, that the Commission might recommend, to fund enhanced recreation at Federally-managed lakes and reservoirs.

Introduction

The idea of financially supporting parks through the use of user fees is certainly not new. There is a record of one of the Roman baths that charged one quarter of an *as* (an ancient Roman coin of copper alloy) for men and twice that much for women. Here in the United States, as early as 1859 in New York's Central Park, ice skates could be rented from park vendors for 10 cents per hour; a few years later, a concessionaire was selling mineral water at Mineral Springs, the first building built in the park.¹⁶

One of the first fees charged for recreation access in the United States was an automobile fee instituted at Mount Rainier National Park in Washington State in 1908, eight years before the National Park Service was founded.

The issue of charging a fee for the use of public recreation facilities built with Federal funds on lands purchased with Federal funds has long been a contentious one. Early resistance to fees and charges was rooted in a philosophy that public recreation programs were primarily designed for lower socioeconomic classes and to charge for services meant to deprive those groups of the opportunity to participate.

Fee opponents argue that their tax dollars have been used to pay for acquisition of the land and development of the facilities. Therefore, they shouldn't have to pay again when they use the facilities. Proponents argue that although the facilities were built and land acquired with taxpayer dollars, the additional cost of operating, maintaining and replacing those facilities should in part be borne by charging users a fee to gain access to or use of these facilities and lands.

The basic premise of cost recovery and revenue generation on public lands is founded in the Federal Government's policy to secure monetary return of fair market value for the use of the

¹⁶ Warren, Roger and Phillip Rea. Fee Supported Parks: Promoting Successes. Parks and Recreation. Vol. 33, No. 1. January 1998. pps. 81-88.

land and developed facilities.¹⁷ Recreation demand at Federal facilities is increasing annually and the ability to meet demand or even maintain status quo is limited by the current Federal budget. The innovative use of volunteers and partnerships may help stretch current appropriations for the recreation program. Recreation user fees are a necessity to improve recreation management and conserve the nation's public lands.

Currently, all socioeconomic classes take advantage of programs available on public lands and support fees that improve facilities and services. The Federal Government is authorized to collect recreation fees under various statutes.

Since 1960, discussion about the use of fees has slowly escalated, peaked, receded and most recently risen, once again. Some reasons that have contributed to the recent reemergence of the issue are: 1) the need of Federal agencies for more money for operation and maintenance; 2) the questions of what agencies should be covered by Federal fee legislation; 3) the opinions and views of the public's willingness to pay for recreation once considered free; and 4) where the fees go following their collection.

The legislation that authorizes the collection of recreation user fees for all Federal agencies with recreation responsibilities was promulgated as a result of the findings prepared by the 1962 Outdoor Recreation Resources Review Commission (ORRRC). The ORRRC called for fees for those activities which involve exclusive use of facilities or which require the construction of specialized facilities by the Government. The Commission recommended that fees' rates should be calculated to recover a reasonable portion of the cost of administering, operating and maintaining such facilities.

The ORRRC was influential in passage of the Land and Water Conservation Fund Act (LWCF) (Public Law 85-578) in 1964. This Act authorized Federal agencies to designate recreation areas for which entrance, admission and other types of fees could be charged. The LWCF authorized the charging of fees on either an annual or single-visit basis for admission to any designated outdoor recreation area. This fee allowed only for entry into an area. The use of specialized sites, facilities, equipment or services required a recreation user fee. Although the principal purpose of the LWCF was to provide a source of funding to State and Federal agencies for acquiring lands for recreation, the Act has remained the usual vehicle for recreation fee proposals. The seven Federal agencies designated to collect the recreation fees and charges are: (1) Bureau of Land Management (BLM); (2) Bureau of Reclamation (BOR); (3) Corps of Engineers (COE); (4) Forest Service (FS); (5) Fish and Wildlife Service (FWS); (6) National Park Service (NPS);

¹⁷ Office of Management and Budget. Circular Number A-25. User Charges. July 8, 1993. 8 pps.

and (7) Tennessee Valley Authority (TVA).¹⁸ Note these are the same Federal agencies involved in the National Recreation Lakes Study.

Initially, there was very little opposition to the general purpose of the LWCF. However, the issue of fees caused extensive controversy. Several interests opposed the entrance and user fee provision. Before the passage of the Act, Federal agencies charged entrance and user fees at some of the National Parks, National Forests, and other Federal land and water areas, but not all of them. In general, entrance fees and user fees were to be charged at areas administered primarily for scenic, scientific, historical, cultural or recreational purposes.¹⁹

The President's Commission on Americans Outdoors, which was established in 1985 to review existing outdoor recreation policies, programs and opportunities and to recommend actions to meet future recreation needs, submitted its draft report to the President in of 1987. Included among its draft recommendations is its proposal that "local, State, and Federal recreation and resource management agencies charge visitors fees to supplement regular appropriations, with the objective of recovering a reasonable portion of operation and maintenance cost."²⁰

In 1987, Congress passed the Omnibus Budget Reconciliation Act of 1987 (Public Law 100-203), which further amended the LWCF. One amendment requires that recreation user fees previously deposited into the Land and Water Conservation Fund be deposited into a special account for each agency as established by the Treasury of the United States. These funds are now deposited into a special account, and made available for appropriation in the following fiscal year for resources protection and recreation management in areas managed by the collecting agency.

From 1971 through 1992, an annual Federal Recreation Fee Report was sent to the Congress in accordance with Section 4(h) of the LWCF, [16 U.S.C. 460l-6a(h)]. A Federal Recreation Fee Task Force, composed of representatives of the seven reporting agencies (BLM, BOR, COE, FS, FWS, NPS and TVA), provided guidance each year regarding the preparation of the Fee Report. The Fee Report contained Federal land managing agency data and information limited to: 1) Golden Eagle Pass sales and receipts; 2) Golden Age and Golden Access Passport issuance; 3) fee and non fee management units; 4) user and entrance fee receipts; and 5) visitation to lands and waters administered by each of the seven reporting Federal agencies.²¹ The annual publication of this report required the Federal agencies to talk together and use common terms

¹⁸ Brown, LaTonya L. A Legislative History of Outdoor Recreation User Fees. Congressional Research Service, The Library of Congress. Report Number 92-645 ENR. August. 14, 1992. 25 pps.

¹⁹ Ibid.

²⁰ President's Commission on Americans Outdoors. Report and Recommendations to the President of the United States. December 1986.

²¹ National Park Service. U.S. Department of the Interior. Federal Recreation Fee Report to Congress. 1992. 22 pps.

and measures. A State Park Information supplement was included in the Fiscal Year (FY) 1990 and 1991 Fee Reports.

The annual Federal Recreation Fee Report to Congress was discontinued following publication of the 1992 Fee Report as part of the Administration's paperwork reduction effort. Then in 1995, the requirement for the annual Fee Report was repealed by the Federal Reports Elimination and Sunset Act of 1995 (Public Law 104-66).

Agency Overview - Fees and Revenues

One of the early developments by professionals who played leadership roles in the development of a systematic approach to managing fiscal resources was a classification system for different types of fees and charges. The system consists of seven categories of fees and charges:²²

1. **Entrance fees** are charges to enter a large park, botanical garden, zoological garden, or other developed recreation area. The areas are usually well defined but are not necessarily enclosed.
2. **Admission fees** are described as charges made to enter a building, structure, or natural chamber.
3. **Rental fees** are payments made for the privilege of exclusive use of tangible property of any kind.
4. **User fees** are defined as charges made for the use of a facility, participation in an activity or fares for a controlled ride.
5. **Sales revenues** are revenues obtained from the operation of refectories, stores, concessions, restaurants and from the sales of merchandise or other property.
6. **License and permit fees** are synonymous. A license is a written acknowledgment of consent to do some lawful thing without command and it is usually by a division of government.
7. **Special-service fees** are charges made for supplying extraordinary articles, commodities, activities or services as an accommodation to the public.

Title V of the Independent Offices Appropriation Act of 1952, as amended, authorizes Federal agencies to issue regulations to assess a fair fee for a service or thing of value provided to an identifiable recipient beyond that provided to the general public. The Office of Management and Budget (OMB) Circular A-25 implements the Independent Offices Appropriation Act's fee requirements. The circular classifies charges into two categories - special services and leases or sales. When providing special services, such as reviewing and processing permits or leases, Federal agencies are to recover the costs of providing the services, resources, or goods. When the Government sells or leases goods, resources, or real property, agencies are to establish user fees to recover the fair market value of the goods, resources, or services provided. Under the provisions of the Independent Offices Appropriation Act and OMB Circular A-25, Federal agencies are to obtain fair market value in the absence of specific legislation to the contrary.

²² Warren, Roger and Phillip Rea. Fee Supported Parks: Promoting Successes. Parks and Recreation. Vol. 33, No. 1. January 1998. pps. 81-88.

The revenues collected by the agencies differ greatly, both in the amount charged and in the activity/reason for which the fee is charged. This is largely due to the laws that have directed the different agencies and their specific fee programs. A detailed compilation of the legislative history of outdoor recreation user fees can be found in a 1992 Congressional Research Service report²³ (covers the period 1961 - 1990) and a 1998 National Recreation Lakes Study Commission report²⁴ (covers the period 1991 - 1998).

Table 8-1 illustrates the types of fees each agency is authorized to collect.

Table 8-1
Recreation Revenue Sources by Agency

Revenue Source	BLM	BOR	COE	FS	FWS	NPS	TVA
<i>Entrance fees</i>							
Entrance Fees	☐			☐	☐	☐	
Golden Eagle Passports	☐			☐	☐	☐	
Golden Age Passports	☐		☐	☐	☐	☐	☐
<i>Admission fees</i>							
Fee Demo	☐			☐	☐	☐	
Interpretive Programs					☐	☐	
Golden Age Passports	☐		☐	☐	☐	☐	☐
<i>Rental fees</i>							
Fee Demo	☐			☐	☐	☐	
Golden Age Passports	☐		☐	☐	☐	☐	☐
<i>User fees</i>							
Camping	☐	☐	☐	☐		☐	☐
Day Use	☐	☐	☐	☐		☐	☐

²³ Brown, LaTonya L. A Legislative History of Outdoor Recreation User Fees. Congressional Research Service, The Library of Congress. Report Number 92-645 ENR. August. 14, 1992. 25 pps.

²⁴ Wahus, David J. A Continuation of the Legislative History of Outdoor Recreation User Fees. National Recreation Lakes Study Commission. Unpublished manuscript. October 1998. 6 pps.

Revenue Source	BLM	BOR	COE	FS	FWS	NPS	TVA
Overnight Back Country Permits	☐			☐		☐	☐
Reservation Fees			☐	☐			☐
Resident Centers						☐	☐
Boat Launching Fee			☐		☐	☐	
Commercial Tour Use Fee		☐			☐	☐	
Golden Age Passports	☐		☐	☐	☐	☐	☐
<i>Sales revenues</i>							
Cooperating Associations	☐		☐	☐	☐	☐	
<i>License and permit fees</i>							
Rec. Leases/ Concessions	☐	☐	☐	☐	☐	☐	☐
Land Use		☐					☐
<i>Special-service fees</i>							
Special Use Permits	☐	☐	☐	☐		☐	☐
Film Making	☐	☐		☐			

Table 8-2 describes each agency's authority for collecting fees and what happens to the fees collected. It is important to note the significant difference in existing legislated authority to the various agencies. For instance, the BOR has the authority to collect few fees. Most of their parks are leased for operation to State or local governments or the private sector. Further, the COE does not have the authority to charge entrance fees. The COE, like the other land management agencies, was given the authority to charge entrance fees in 1965 by the LWCF. However, the Rivers and Harbors Act of 1968, Public Law 90-483, prohibited the collection of entrance fees at lakes and reservoirs under the COE jurisdiction.²⁵ Subsequently, a number of amendments to the LWCF, applying to specific agencies, have resulted in the Federal land management agencies having very different recreation fee programs.

Table 8-2
Agency Authority to Collect and Retain Fees

²⁵ Brown, LaTonya L. A Legislative History of Outdoor Recreation User Fees. Congressional Research Service, The Library of Congress. Report Number 92-645 ENR. August. 14, 1992. 25 pps.

Agency	Collection of Fees	Retention of Fees
Bureau of Land Management	Authority: The Land and Water Conservation Fund (LWCF) Act of 1965 (as amended) in 1972 and the Omnibus Budget Reconciliation Act of 1989.	All LWCF fee revenues are returned to the U.S. Treasury and available to be appropriated in annual appropriations. Omnibus Budget Reconciliation Act of 1989 fee revenues are returned to the area of collection, with a legislative limit on the amount retained by the Bureau.
Bureau of Reclamation	Authority: The Land and Water Conservation Fund (LWCF) Act of 1965 (as amended) and the Federal Water Project Recreation Act of 1965 (as amended).	All LWCF fee revenues are returned to the U.S. Treasury and available to be appropriated in annual appropriations.
U.S. Army Corps of Engineers	Authority: The Land and Water Conservation Fund (LWCF) Act of 1965 (as amended).	All LWCF fee revenues are returned to the U.S. Treasury and available to be appropriated in annual appropriations.
U.S. Forest Service	Authority: The Land and Water Conservation Fund (LWCF) Act of 1965 (as amended).	Twenty-five percent of all funds collected are distributed to the counties in which they were collected (P.L. 60-136). Seventy-five percent of all funds are returned to the U.S. Treasury.
U.S. Fish & Wildlife Service	Authority: The Land and Water Conservation Fund (LWCF) Act of 1965 (as amended) and Emergency Wetlands Resources Act of 1986.	All LWCF fee revenues are returned to the U.S. Treasury and available to be appropriated in annual appropriations. Emergency Wetlands Resources Act of 1986 provided that 70% of the collected fees be used for nationwide acquisition of refuge lands and 30% to offset refuge operational & fee collection costs.
National Park Service	Authority: The Land and Water Conservation Fund (LWCF) Act of 1965 (as amended). Special Park Uses (SPU) can be collected under 16 U.S.C. 3(a) and 31 U.S.C. 3701.	All LWCF fee revenues are returned to the U.S. Treasury and available to be appropriated in annual appropriations. SPU fees can cover costs incurred in providing special park use, but the remainder is returned to the U.S. Treasury.

Agency	Collection of Fees	Retention of Fees
Tennessee Valley Authority	Authority: The Tennessee Valley Authority Act of 1933 (as amended).	Proceeds derived by the Board of Trustees from the "sale of power . . . and from any other activities (recreation fees) of the Corporation . . . shall be paid into the Treasury of the United States. . . ."

The revenues collected from the sources identified in Table 8-1 are presented for Fiscal Years 1994 - 1997 in Table 8-3. The FY 1997 revenue increases for the BLM, FS, NPS and FWS are due primarily to the authorization in 1996 of the Recreational Fee Demonstration Program, which is discussed in detail later in this report. The FY 1996 revenue increase for the COE is due primarily to the full implementation of the 1994 day use fee authority.

**Table 8-3
Federal Land Managing Agency Revenue Collections**

Agency	FY 1994 \$	FY 1995 \$	FY 1996 \$	FY 1997 \$	Average Annual, Revenue
BLM	4,007,770	4,226,600	4,551,800	5,976,200	4,690,592
BOR	473,000	478,000	449,000	408,000	452,000
COE	28,790,221	31,699,159	39,419,137	39,040,690	34,737,300
FS	47,655,000	46,255,000	47,507,000	52,916,038	48,583,257
FWS	2,205,000	3,077,590	3,183,917	6,438,331	3,726,209
NPS	75,930,968	80,546,384	77,690,666	122,201,210	89,092,305
TVA	2,032,181	2,690,740	3,452,125	3,880,225	3,013,818
Total	161,094,140	168,973,473	176,253,645	230,860,694	

The Subcommittees of the Appropriations Committees of the House and Senate which are responsible for developing the agencies' annual appropriations bills are not the same for all of the agencies. The Energy and Water Development Subcommittee in both the House and the Senate are responsible for BOR, COE and TVA. The Interior and Related Agencies Subcommittee in both the House and the Senate are responsible for BLM, FS, FWS and NPS.

Appropriations must be enacted annually prior to the beginning of the fiscal year before the agencies can spend money. Agencies request funds through OMB as part of the President's annual budget request. Then the Congress responds with appropriations bills which must be signed into law by the President before funds can be made available for use by the respective agencies. The agencies cannot spend more than Congress appropriates.

Congressional direction through appropriations can be general or very specific for the different agencies. The Congress may designate money for general purposes or programs, or be as specific as funding for a single lake. Agencies are limited to the amount of reprogramming authorized without prior approval of the respective Appropriations Subcommittee.

Revenues collected by the agencies are deposited in a special Treasury account created by the LWCF. These revenues are available for appropriation back to the agencies the following fiscal year. The agencies must request the funds and Congress must, and consistently has, appropriated the full amount deposited to the fund.

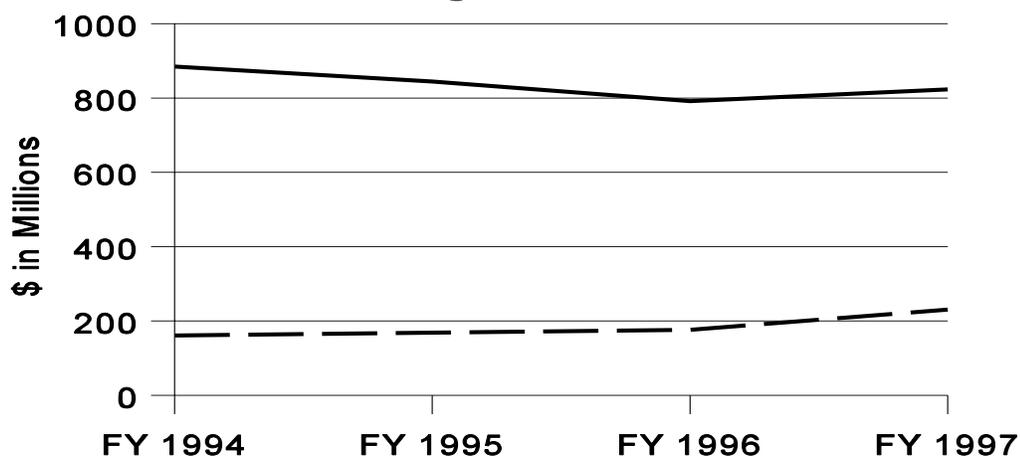
Table 8-4 shows the agency appropriations for recreation for Fiscal Years 1994 - 1997. Some of the agencies' appropriations reflect an increase while others are constant or dropping.

Table 8-4
Federal Agency Recreation Appropriations
for Fiscal Years 1994 - 1997

Agency	FY 1994	FY 1995	FY 1996	FY 1997
BLM	25,104,000	25,889,000	26,043,000	27,772,000
BOR	22,095,000	16,261,000	12,455,000	9,624,000
FS	372,247,000	301,546,000	267,178,000	281,000,000
NPS	230,000,000	250,300,000	251,500,000	271,900,000
COE	196,514,200	210,299,700	198,339,100	197,364,000
FWS	35,000,000	35,000,000	35,000,000	35,000,000
TVA	3,653,000	2,035,000	1,080,000	702,000
Total	884,613,200	841,330,700	791,595,100	823,362,000

Recreation Appropriations/Revenue

Figure 8-1



As one
can see
from the

————— **Appropriations**
 - - - - - **Revenues**

Figure 8-1 above, which plots recreation appropriations and revenues for fiscal years 1994 through 1997, while the total appropriations for outdoor recreation programs in the seven land management agencies decreased, and the trend seems to be continuing, total revenues collected for entrance to and the use of Federal parks and recreation areas were level until the implementation of the Recreational Fee Demonstration Program in 1996. The Recreational Fee Demonstration Program provided managers with an incentive to increase fees and a means to pay for the increased cost of collecting those fees. Fees collected in excess of the cost of fee collection were used to reduce maintenance backlogs at the parks in which the fees were collected.

In 1995, the House of Representatives Subcommittee on National Parks, Forests and Lands compiled information on the Federal recreation fee program of six Federal land management agencies. TVA was not included in the review. The review addressed annual visitation, recreation program costs and user/entrance fee revenues based on 1992 - 1994 data. The data are presented in table 8-5. Although the percent of the agency recreation programs paid for by fees varied from 2% to 16%, overall the average for this three-year period was 10%. One must keep in mind that the fee demonstration program which increased the quantity of fees collected was authorized and implemented after 1994. This program will be discussed in detail below.

Table 8-5
Federal Recreation Fee Program²⁶
1992-1994

Agency	Average Annual Visitation	Avg. Annual Recreation Program Cost	Cost Per Visitor	Average Annual User/Entrance Fee Income	% of Recreation Program Paid by Fees
COE	377 million	\$184 million	\$0.48	\$ 22 million	12%
FS	304 million	\$357 million	\$1.17	\$ 13 million	4%
NPS	270 million	\$444 million	\$1.64	\$ 69 million	16%
BLM	62 million	\$ 39 million	\$0.65	\$ 2 million	5%
BOR	37 million	\$ 44 million	\$1.18	\$ 1 million	2%
FWS	28 million	\$ 28 million	\$1.00	\$ 2.5 million	6%

Recreational Fee Demonstration Program.

²⁶ The United States House of Representatives Resources Committee, Subcommittee on National Parks, Forests and Lands, 1994.

The Recreational Fee Demonstration Program (commonly called the Fee Demo Program) was authorized by Section 315 of the Fiscal Year 1996 Interior and Related Agencies Appropriations Act. The program authorizes the National Park Service, Bureau of Land Management, Fish and Wildlife Service and Forest Service to implement and test new fees across the geographic and programmatic spectrum of sites that they manage. The program allows the participating agencies to retain all of the demonstration project revenues, and to retain at least 80 percent of the revenues at the sites where they are collected.

It is important to note that the Corps of Engineers, the Bureau of Reclamation and the Tennessee Valley Authority were not included in the program authorization. These agencies receive their funding from a different appropriation committee than do those agencies/bureaus included in the authorization.

Congress authorized the Fee Demo Program to begin on October 1, 1995, and to end on September 30, 1998, and later extended the program for an additional year. Section 327 of the Omnibus Appropriations Act for FY 1999 extended the program for two additional years through September 2001.

As of September 30, 1997, there were 97 National Park Service Demonstration projects, ten Bureau of Land Management projects, 61 U.S. Fish and Wildlife Service projects and 40 Forest Service projects. The agencies collected \$138,775,000 in revenues from all recreation fee sources during the first year of the program (FY 1997) at Fee Demo Program sites. This represents an increase of \$53,493,000, or 61 percent, from revenues collected the previous year, a gain that is attributable to the Fee Demo Program.²⁷

When comparing agencies' fee collections it is important to note that compared to the other agencies, the NPS generates substantially higher revenues mostly due to the Service's large number of high revenue units. For FY 1997, there were 28 NPS units that each generated more than \$1 million in fee revenues, and two of these units -- Grand Canyon and Yosemite National Parks -- each generated more than \$10 million. Nearly all of the 28 units are highly visited areas that have a history of charging entrance fees prior to the Fee Demo Program. In addition to the high revenue units of the NPS, the Forest Service has two units where revenues exceed \$1 million. In contrast, in FY 1997, the FWS and BLM did not have any units with revenues above \$1 million.²⁸

The four agencies that are part of the Fee Demo Program have targeted similar areas of visitor services on which to spend the newly generated revenues. The largest amount of expenditures has gone toward repair and maintenance, cost of collection and routine operations at respective

²⁷ Department of the Interior and Department of Agriculture. Recreational Fee Demonstration Program: Progress Report to Congress. Volume I - Overview and Summary. January 31, 1998. 48 pps.

²⁸ United States General Accounting Office. Recreation Fees -- Demonstration Fee Program Successful in Raising Revenues but Could Be Improved. GAO/RCED-99-7 (draft). January 31, 1998. 41 pps.

units. The General Accounting Office reports²⁹ that about 76 percent of the revenue available for expenditure under the Fee Demo Program through March 1998 had yet to be spent. This was largely due to a variety of reasons including time the agencies spent developing 1) accounting systems, and 2) internal processes for headquarter's oversight of expenditures. "Almost all the expenditures have gone toward repair and maintenance, cost collection and routine operations at the respective sites."³⁰ The largest category of expenditures was for annual operations.

It appears that GAO will encourage the Congress to continue the program and adjust the percentage that is held in the larger and more revenue generating units. GAO states, "some further flexibility in where fee revenues could be spent, particularly the fees form high revenue sites, would provide greater opportunities to address the highest priority needs of the agencies. However, any change to the 80 percent requirement would have to be balanced against the need to maintain incentives at fee collection units and maintain the support for the visitor."³¹

Public acceptance of the program has been generally high. There has been strong public support for retaining fee revenues at the site to improve visitor services and not return revenues to the United States Treasury. In a National Park Service survey of visitors, 85 percent indicated that they were either satisfied with the fees they paid or thought the fees were too low. In a USDA Forest Service survey, 64 percent agreed with the statement that the opportunities and services they experienced were at least equal to the fee they paid. The visitation to the fee demonstration sites does not appear to have been significantly affected, either positively or negatively, by the new fees.

The flexibility provided to the agencies has resulted in innovative approaches to fee collection, and a high level of responsiveness to the public in the design and implementation of fee programs. The ability to retain funds for visitor improvements at the site has given agency personnel a strong incentive to work with the public on revenue generation and is the source of public support to the fee program. It is important that future fee programs contain these agency and public incentives and that they provide flexibility to tailor fee programs to specific needs and situations and to address revenue inequities. Permanent statutory authorization would allow agencies to strengthen multi agency and multi governmental fee arrangements and make the long-term plans and investments in fee collection infrastructures needed for an efficient fee program. It would also provide the stability for agencies to establish procedures for collecting, tracking, and allocating fee receipts in a clear, accountable manner.

Several issues that the agencies will be working through over the course of the Fee Demo Program include:

²⁹ Ibid.

³⁰ Ibid.

³¹ Ibid.

- Incentives--What is the best way simultaneously to retain strong incentives for local managers to collect fees, incentives for the public to support the fees and management flexibility to consider agency-wide, as well as local, backlog priorities?
- Revenue sharing--What are the fairest and most effective ways to share fee collection costs and fee revenues among the agencies participating in joint fee arrangements?
- Uses of fee revenues--What is the best way to ensure that revenues raised by fees enhance and supplement recreation facilities and services and do not become a substitute for operational funding through the regular appropriation process?
- Cost of collection--What are the most effective approaches for minimizing the costs of fee collection relative to fee revenues?
- "Seamless" fees--How can we reduce the number of fees faced by the recreating public while at the same time tailor fee programs to specific situations and locations?

Substantial gains can be made in generating revenues from recreation sites. These revenues yield substantial benefits because they provide on-the-ground improvements at local recreation sites.

What will happen after this Fee Demo Program? This program and the input of thousands of users across the country who have participated in the program will help Federal land management agencies develop a simple, efficient and convenient fee system. Through the demonstration program, the Congress will gain information to help it decide on the future of charging Federal recreation fees. The American public deserves high quality recreation experiences and value for fees paid.

During the summer of 1997, surveys were conducted to monitor visitor reaction to the Fee Demo program. These surveys found that park visitors generally indicated strong support for the new fees, provided that all or most of the fees collected remain in the park or with the managing agency to improve visitor services or protect the resource, and not be returned to the United States Treasury.³²

Other Considerations

Need for Recreation Planning. At Federal lakes, recreation is a relatively new development (within the last 25 years). Although one of the tenants of the National Park Service has been that its public recreation facilities would be self-sustaining through a system of fees collected both for the entrance to parks and the use of special facilities, this was not the case for the other Federal land management agencies. Recreation facilities were not part of the plans during the

³² Lundgren, Allen L. and David W. Lime. Overview of a 1997 National Park Service Monitoring Study to Obtain Visitor Reactions to the Recreational Fee Demonstration Program. University of Minnesota, Department of Forest Resources, Cooperative Park Studies Unit. Draft manuscript. October 1997. 25 pps.

construction of many of the lakes constructed by the Bureau of Reclamation, Corps of Engineers and Tennessee Valley Authority in the 1950's and 1960's. Therefore, with people being drawn to water, recreation became a byproduct. With the recognition of these phenomena in the late 1960's and 1970's, recreation began to be included occasionally during the planning and construction of the dams that created the bodies of water which continued to attract droves of people for the purpose of recreation. Because of the way the public recreation areas, parks and facilities evolved around these lakes along with the absence of any directive or mandate that they had to be self-sustaining, many of the resulting facilities were not net revenue producers. Although fees have been charged for the use of many of those facilities, in most cases the revenue generated did not come close to covering the cost of operation.

Successful fee-supported parks involve proper planning, quality facilities, effective programming, and sound management. When all of those conditions are on target, the park will be able to maximize revenue while minimizing costs, which is the primary principle inherent in fee supported parks. To maximize revenue, it is necessary to select appropriate areas, facilities and programs to offer in the park development. Minimizing costs is also important and must begin during the planning process. By combining compatible facilities, it is possible to offer multiple services with less staff than if the services were located separately. The end result is maximizing revenue while minimizing costs.³³

Other factors that must be considered in the planning and management of fee-supported parks include:

1. Provide services for which people are willing to pay and that are in demand.
2. Combine groups of marginal facilities and services.
3. Recognize economies of scale. A minimum number of campsites, tennis courts, rental cottages, or boat slips are necessary to cover basic operating costs.
4. Major attractions. Certain physical attractions or special events are certain to attract large numbers of visitors, thereby increasing the opportunity to provide recreation experiences for which people are gladly willing to pay.
5. Pricing. The cost of services should be based on a level of service relative to the competition.
6. Location, location, location. While people are willing to travel considerable distances for some recreation experiences, that isn't the case for others.
7. Programming. Good programming will increase park attendance, which is necessary to maximize net revenue.
8. Include revenue facilities in early phases of park development.

Willingness to Pay. A majority of users surveyed were willing to pay higher recreation fees provided the revenue was returned to the parks or recreation areas for operation and

³³ Warren, Roger and Phillip Rea. Fee Supported Parks: Promoting Successes. Parks and Recreation. Vol. 33, No. 1. January 1998. pps. 81-88.

improvements at the site. Most users see this as an investment rather than as a “tax.” If the area they enjoy can be continually available or improved, they are willing to help defray the costs.³⁴

In 1993 and again in 1996, visitors to COE lakes were surveyed on their reaction to fees being charged for the use of day-use facilities.³⁵ In 1994, the Corps of Engineers received authority to collect boat launching fees and a fee for the use of swimming beaches. The 1993 survey predicted a 50% reduction in use if day-use fees were implemented. The 1996 survey did not support that prediction but rather showed a 16% increase in use compared to 1993. Following implementation of the fees, public support increased. There continues to be strong opposition to fees in many areas. Five factors were identified as important to the support of fees: (1) cleanliness and maintenance of the park; (2) crowding and behavior of other visitors; (3) availability of developed facilities; (4) project staff availability and performance; and (5) natural resources at the project. The survey further found that when a gate attendant was taking money versus the visitors voluntarily depositing fees in an honor system vault, there was greater support of the fee program in addition to perceptions of higher quality recreation and greater security.

At a February 26, 1998, House Committee on Resources, Subcommittee on National Parks and Public Lands hearing on recreation fees, Mr. John Berry, Interior Assistant Secretary for Policy, Management and Budget, indicated that the Fee Demo Program appeared to have negligible impact on visitation levels during the first full year of the program. Surveys showed that 83% of National Park visitors were either satisfied with the new fees or thought the fees were too low. In the Forest Service, more than 64% of the people who completed a survey card said the opportunities and services they experienced were at least equal to the fee they paid.³⁶

In early 1998, the Recreation Roundtable (a group of outdoor recreation industry CEO's), in cooperation with six Federal agencies, conducted their fifth annual national survey to gauge current participation patterns in, and satisfaction with, outdoor recreation in America, as well as to document the quality of outdoor recreation over time. One of the issues evaluated was the public's willingness to pay to use or visit Federal lands. Those Americans who have used public lands in the past year are willing to pay an average of \$9.20 in additional fees when they use Federal lands, down from 1997 (\$11.20).³⁷

Significance of State Parks at Federal Lakes. There are more than 800 State parks on Federal lakes. Because the State parks are similar to those operated by the Federal agencies, the funding

³⁴ U.S. Army Corps of Engineers. Recreation Study: Volume 1: A Plan Prepared for the Assistant Secretary of the Army (Civil Works). September 1990. 147 pps.

³⁵ Henderson, Jim. If we charge them, will they come? U.S. Army Engineer Waterways Experiment Station. RECNOTES. Volume R-97-2. September 1997. pps 1-4.

³⁶ Associated Press. Visitors to National Parks Voice Support for New Fees. The Washington Post. February 27, 1998.

³⁷ Outdoor Recreation in America 1998. Roper Starch, Consulting. June 1998. 58 pps.

sources of the State parks were examined to determine if innovative funding source ideas used by States could be considered for Federal lakes.

The first admission fees for State parks were initiated in Connecticut during the summers of 1933 and 1934, when a preferential parking fee was tried in four parks.³⁸ State parks in all fifty States have combined total operating expenses of \$1.3 billion. Their source of funds is shown in Table 8-6 for the period July 1, 1996, through June 30, 1997. It is interesting to note that 40.2% of the total operating expenses of State parks are paid for by revenues from fees collected for the use of those parks. The other main source of revenue comes from general State funds (45.1%).

Table 8-6
Sources of Funds
for State Park Operating Expenditures³⁹
(For the period July 1, 1996 - June 30, 1997)

Sources of Funds	\$ Amount in Millions	% of Total
Fees Charged for Use of the Parks	\$532.3	40.2%
General State Funds	\$595.9	45.1%
Dedicated Funds	\$131.8	10.0%
Federal Funds	\$14.9	1.1%
Other	\$47	3.6%
Total	\$1,321.9	100%

State parks generate revenues within their parks from a variety of sources including entrance fees, camping, cabins/cottages, lodges, group facilities, restaurants, concessions, beaches/pool and golf. Thirty States have dedicated funds from which part of their overall revenue is derived. Eighty-six percent of the State of Missouri's revenues comes from such a dedicated fund. A portion of the State sales tax goes to the support of Missouri State Parks.

Alabama State Parks is an example of an agency that produces a sizable amount of revenue by largely operating the revenue facilities itself. Most of its parks were not originally located or

³⁸ Warren, Roger and Phillip Rea. Fee Supported Parks: Promoting Successes. Parks and Recreation. Vol. 33, No. 1. January 1998. pps. 81-88.

³⁹ The National Association of State Park Directors. The 1998 Annual Information Exchange: A Statistical report of State Park Operations for the period July 1, 1996 through June 30, 1997. The Eppley Institute. Department of Recreation and Park Administration. Indiana University. 54 pps.

built to be profitable because the concept of public service prevailed. Today, a number of parks with lodges, golf courses, cottages, and large campgrounds generate enough revenue to pay all expenses. Legislation was passed several years ago allowing Alabama State Parks to retain all earned revenue.⁴⁰

Conclusion

As future recreation facilities are planned and developed, revenue generation must be a major consideration in all phases of the development regardless of who will be operating the management unit. At the same time the facilities must be planned and designed to increase the efficiency and minimize the cost of fee collection.

Fees must be returned to the management unit to benefit the resources, facilities and programs used by those paying the fees and they must have a demonstratable positive impact on resource protection and visitor services.

Challenge cost sharing (also called challenge partnering) is a program which has been authorized for use by the BLM, COE, FS and NPS. It is a program in which the Federal agencies can enter into partnering agreements with non-Federal public and private groups and individuals to contribute in operation and/or management of recreation facilities and natural resources at agency management units. Partnering under this program provides a way for agencies to stretch their operating budgets by sharing in the cost of operating and/or managing recreation facilities and natural resources. This is not to be confused with concession operations. This program has been quite successful for the Forest Service, providing a \$3.00 contribution for every Federal dollar.

National foundations have been instrumental in helping obtain both corporate and individual donations that could be used to augment traditional Federal funding sources. Three foundations, The National Park Foundation, The National Forest Foundation, and The Fish and Wildlife Foundation, are authorized by Congress and provide support to their respective agencies. They support all aspects of the agency activities and are not established just to further or support recreation.

The Recreation Partnerships Initiative (RPI) is a new initiative designed to provide additional public recreation opportunities and infrastructure at U.S. Army Corps of Engineers water projects at no additional cost to the Federal Government through private sector involvement where demand exists. This initiative is unique in that the private sector is helping the Corps attract private sector development of public recreation facilities on Federal land. The purpose of the program is to encourage private development of public recreation facilities such as marinas, hotel/motel/restaurant complexes, conference centers, RV camping areas, golf courses, theme parks and entertainment areas with shops, rather than development of private exclusive use facilities, such as condominiums, time shares or private residences.

⁴⁰ Warren, Roger and Phillip Rea. Fee Supported Parks: Promoting Successes. Parks and Recreation. Vol. 33, No. 1. January 1998. pps. 81-88.

A marketing plan is being developed to attract private sector developers who are interested in providing public recreation facilities at several specific sites throughout the Nation at no cost to the Federal Government. The selection of five specific sites is market driven and based on extensive market research. State economic development agencies have indicated a willingness to consider providing tax and low interest loan incentives and infrastructure construction assistance to potential developers of public recreation facilities at these sites. Work is expected to proceed so that 30 year leases for specific sites can be executed by successful developers in January 2000.

“Until the fee demo program came along, a visitor was an expense for a manager in the field, not an asset. Whatever fee the visitor paid went to the Treasury, yet the expense of picking up the garbage, paying the light bill or whatever came out of the manager’s budget. So the more visitors the manager had, the more inadequate the budget became.”⁴¹

One of the fears of the agencies participating in the Fee Demo Program is that the increased revenues collected through fees will actually reduce Federal appropriated dollars. Federal agencies worry that fees will be applied against their annual budget request and their appropriation from the Congress reduced by that same amount. If that happens, public and management agency support for a broader fee program will likely erode. A majority of users surveyed indicated a willingness to pay higher recreation fees provided the revenue was returned to the parks or recreation areas for operation and improvements at the site collected.

Although some would argue that the same fees and fee policies should be applied to and followed by all of the land management agencies, others argue that we should not try to make one size fit all. All of the agencies are different by the nature of their mission and legislative authorities. Although they all provide public outdoor recreation opportunities, they provide different opportunities in different settings.

Encouraging agencies to increase the revenues they receive from fee collections makes sense only if there is a reason or incentive to do so and not just another expense. Receiving the fees as an offset of an annual appropriation provides no incentive to increase fee collections.

The Fee Demo Program appears to be quite successful following its second complete year of implementation. If that success continues, it appears legitimate that the program should be made permanent. The program encourages innovation and partnerships with other Federal agencies, States and local government providers of recreation. The fees are retained in the management unit at which they are collected to cover the cost of collection as well as to reduce the maintenance backlog of the infrastructure for the activities that generated the fees.

The Fee Demo Program should also be expanded to include the Bureau of Reclamation and the Corps of Engineers. The Tennessee Valley Authority has the authority to retain fees at the management unit where collected and to apply those fees to the cost of collection and

⁴¹ Davies, Richard W. Information concerning funding for the Federal land management agencies. Informal communique. September 9, 1998.

infrastructure operation and maintenance. It would not be necessary to add TVA to the Fee Demo Program.

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Task 10 Federal Lake Recreation Management Plans

Comprehensive land use planning is essential for long-term protection, appreciation, and effective use of Federal lands and resources. Nearly all Federal land managing agencies, with multiple-resource values to consider, have developed some type of structured plan or multiple plans. Whether called Land Use Plans, Resource Management Plans, Master Plans, Operations Plans, etc., the end product and outcome is basically the same: a broad, methodically-developed plan and strategy with extensive consideration for social, environmental, and economic values which are compatible with surrounding uses and trends.

A recreation area management plan is usually a document with narrower focus that directs the implementation of recreation land-use decisions made within the broad resource management plans. The recreation plan is constrained by planning objectives and land-use allocations. Within these multiple-use constraints, the recreation area management planning effort will consider alternatives for achieving identified objectives for the recreation resource and recreation user management. A recreation area management plan reflects the best professional judgment of a team of multi-disciplinary specialists, planners, and management, tempered by input from the general public, stakeholders, local governments, etc., and is based upon present and projected requirements to meet future recreation needs.

The Federal land use planning process has now passed through several generations of plans and many revisions have been implemented. Agencies are constantly revising or updating their planning process to more adequately deal with evolving issues. Through this constant and evolutionary process, some common elements have emerged which should become a part of planning considerations. The following outline of key elements, while not all inclusive, are most consistently a part of current agency plans and should become an integral part of any planning process if a National Recreation Lakes System were to be designated.

Inventories

- physical resource data
- use & trends (recreation)
- natural
- historic
- cultural

Public Involvement

- public meetings, presentations, workshops
- small/large group interaction
- on-site reviews
- document & draft decision reviews

Comprehensive Documentation

- policies, goals & objectives
- balanced resource use & protection (i.e., recreation component)
- social & economic considerations

Coordination

- State (i.e., State Comprehensive Outdoor Recreation Planning)
- Tribal (sacred sites, developments)
- local (county/city)
- private (commercial developments)
- stakeholders

Environment

- compliance (NEPA, et al.)

compatibility

Monitor

annual/periodic reviews
mitigation
compliance
health & safety
modification/elimination

It should be noted that the Federal land management agencies associated with the National Recreation Lakes Study recognize the existing elaborate and complex process that has evolved from land use planning. The current efforts of these agencies is to modify and reform these processes to provide more 'user-friendly' information with less paperwork documentation, thereby increasing the availability of funds and personnel for other high priority needs. This ongoing effort is consistent with the Paperwork Reduction Act and the Administration's initiative to streamline, simplify and reinvent the Federal Government.

**Ownership and Management of
Federal Lakes (490) over 1,000 Acres**

Source: National Inventory of Dams

Federal Agency (%)	Dam Owner - number (%)	Recreation Mgr. - number
Corps of Engineers	304 (62)	304 (62)
Bureau of Reclamation	150 (31)	19 (04)
Tennessee Valley Authority	30 (06)	29 (06)
Forest Service	4 (01)	37 (08)
National Park Service	2 (<1)	13 (03)
Fish and Wildlife Service	-0-	5 (01)
Bureau of Land Management	-0-	3 (<1)
other agencies/State & local	-0-	80 (16)

PLANNING DOCUMENT STATUS Age Analysis (490 lakes)

Source: National Inventory of Dams

<u>existing Plans (%)</u>	<u>*data voids(%)</u>	<u>> 5yr old Plans (%)</u>	<u>> 10yr old Plans (%)</u>	<u>updated by 1999 (%)</u>	<u>updated by 2003 (%)</u>
326 (67)	164 (33)	151 (46)	26 (08)	217 (67)	264 (81)

*The National Inventory of Dams, used to analyze management plan documentation, age and scheduled plan updates, is an existing database with information provided by the agencies involved in the National Recreation Lakes Study. There are blank datafields in the database. These blank datafields are not interpreted to mean that no plans exist, but only that the information was not reported. For this reason, the database alone should not be considered a complete and total indication of the adequacy of an agency planning process. The inventory does show the long-term efforts of these agencies to engage in a structured planning process to consider the effects of recreation activities associated with lake properties. Discussions with agency personnel indicate the dynamic nature of the planning process and that plans have been and are regularly reviewed, amended and updated to stay current with demands and changing conditions.

SUMMARY OF AGENCY PLANNING POLICIES

National Park Service:

The National Park Service takes a comprehensive approach to planning for how resources, visitors, and facilities will be managed to carry out it's mission. Park planning is the vital intermediary step that links planning and decisionmaking to park operations. The decision-making process incorporates:

Logic- Park planning and decisionmaking is a continuous, dynamic process of interrelated decisions and trackable rationale.

Analysis- Planning decisions regarding park resources are based on scientific, technical, and scholarly analyses. At key points of planning and decisionmaking, reasonable alternatives will be identified and analyzed.

Public Involvement- Public participation in planning and decisionmaking ensures a better understanding and consideration of the publics' interests in the parks.

Accountability- Management teams are held accountable for identifying and accomplishing both annual and long-term goals as incremental steps toward carrying out the park mission.

The elements necessary for a logical, trackable rationale for decisionmaking will be created and updated through four closely interrelated planning processes: general management planning, park strategic planning, implementation planning, and annual performance planning.

General Management Plans (GMP) are maintained up-to-date for each unit of the national park system defining direction for resource preservation and visitor use. Plan reviews are anticipated on 10-15 year intervals, but often sooner as rapidly changing conditions occur. The plan is developed in consultation with service-wide program managers, all interested parties, the general public, and is based upon analysis of existing and potential resource conditions, visitor experiences, environmental impacts, and costs of alternative courses of action.

General management plans contain the following decision-making elements: mission, mission goals, and management prescriptions. The management prescriptions will address preservation

of park resources, types and general intensities of development, visitor carrying capacities for all areas of the unit, and potential boundary modifications.

General management planning is conducted by an interdisciplinary team of park managers and technical experts, consulting with other knowledgeable persons and the general public. Resource values and land uses are systematically analyzed, and alternatives with impacts are rigorously explored. The analysis of alternatives will meet requirements of the National Environmental Policy Act (NEPA) and an environmental impact statement (EIS) will be prepared.

Strategic planning, required by the Government Performance and Results Act of 1993, is conducted for the National Park Service as a whole, and each park, program, and central office has a strategic plan. A park strategic plan will not substitute for a general management plan because it does not reflect the comprehensive resource analysis, consultation, and compliance required for a general management plan. Ideally, each park strategic plan will tier from the general management plan and contain decision-making elements of mission, mission goals, long-term goals, and resource assessment.

Implementation planning develops a plan of action for dealing with a complex and sometimes controversial issue often requiring a level of detail and analysis that goes well beyond that which is appropriate at the general management planning or strategic planning levels. Implementation planning focuses on how to implement an activity or project. It will generally be deferred until the activity or project under consideration has sufficient priority to indicate that action will be taken within the next two to five years. Actions with the potential to significantly affect the human environment will require formal analysis of alternatives in compliance with NEPA.

Annual performance plans are prepared for each park to articulate fiscal year goals and annual performance reports are prepared to describe progress made in meeting the goals. Because they incorporate decisions made through other planning processes, annual plans do not require public involvement. Annual performance reports may be used as a basis for personnel appraisals; however, accountability for results must be within an employee's ability to affect results.

Bureau of Land Management:

Recreation area management plans are prepared for all special recreation management areas. Recreation area management plans are not normally prepared for extensive recreation management areas, although they may be necessary for all or part of an extensive management area where major investments are necessary to resolve recreation related problems.

The management of recreation use and recreation resources on special recreation management areas is accomplished by implementing recreation area management plans. Major recreation investments such as permanent facility construction and acquisition are not approved until a recreation area management plan is completed.

Recreation management in extensive recreation areas is usually minimal and is implemented through the Bureau's basic stewardship responsibilities. Recreation management actions needed to provide relatively unconstrained recreation opportunities in extensive recreation management areas are identified through Program Packages or Annual Work Plans depending on whether or not increased funding is needed. The actions must be consistent with management decisions in resource management plans but need not be specifically identified in those plans.

A recreation area management plan addresses all recreation uses and potential recreation activities within the recreation management area. Separate recreation area management plans for different recreation management functions, such as facility development, visitor management, search and rescue, and interpretation, are not prepared.

Recreation area management plans are closely coordinated with other resource programs during all phases of preparation.

Bureau of Reclamation:

Resource planning is essential to proper decisionmaking, stewardship, and management of resources under the jurisdiction of Reclamation. Resource planning gathers and evaluates information such as public needs and values, carrying capacity, quantity and quality of existing resources, conflicting uses, existing management problems, and environmental degradation. Plans identify management alternatives, solutions and provide supporting data and framework for making informed resource management decisions. Directives and Standards provide the basic requirements for resource planning and the preparation of Resource Management Plans. They also provide some basic information as to the content of plans and approaches to be considered. Detailed information and guidelines will be presented in a separate Resource Management Planning Handbook which is being prepared in 1998.

Reclamation conducts resource planning to ensure that stewardship practices are achieved on all acquired, withdrawn, and leased lands under its jurisdiction. Through good resource planning, Reclamation ensures that these lands and associated resources are managed to provide a balance of resource development, public recreation, protection of Indian trust assets and Indian sacred sites, protection of natural and cultural resources, and maintenance of environmental quality, while protecting the basic purposes for which the lands were acquired or withdrawn.

Corps of Engineers:

Master Plans (MP) and Operational Management Plans (OMP) are developed and implemented for each civil works project and are intended to work in tandem.

Master plans are developed and kept current (5 yrs) for all civil works projects and other fee owned lands for which the Corps has administrative responsibility for management. Master Plan preparation is initiated as soon as possible after approval of the general design memorandum.

At the Commander's discretion, master plans are prepared for projects not managed by the Corps, such as local protection projects.

The master plan covers a single project or several projects, depending on what is best for management of the resources involved. The master plan covers all resources, including but not limited to fish and wildlife, vegetation, cultural, aesthetic, interpretive, recreational, mineral, commercial, and outgranted lands, easements, and water.

Interdisciplinary master plan teams include representatives of various disciplines depending upon the resources involved and identify information and resource needs.

The Master Plan ensures that environmental mandates and considerations are incorporated, with economy and quality given equal attention in the development of new recreation facilities.

Master Plans focus on three primary components:

- regional and ecosystem needs
- project resource capabilities and suitabilities
- expressed public interests and desires

District commanders are responsible for approving master plans, supplements, updates and ensuring that master plans are completed for all projects. Each master plan is reviewed on a periodic basis, such as five years, and revised as necessary.

An OMP for the project is developed and implemented to achieve the objectives outlined in the approved MP. The OMP is updated annually at the project level with the update costs included in a project budget baseline item.

Tennessee Valley Authority:

Each TVA Resource Group division prepares an annual business plan that documents how its activities are aligned with TVA's overall strategic direction. Business Planning is a system for integrating quality concepts into the way TVA does business. It translates TVA's strategic goals and customer expectations into critical success factors, objectives, indicators, and specific activities that address customer needs and improve TVA's performance. Guidelines for developing business plans are found in the TVA Quality Manual and in directions issued annually by the Chief Operating Officer's Business Services organization.

Basic Total Quality Management principles guide the TVA Business Planning Process. The NEPA process was used to guide development of the Land Between the Lakes Natural Resource Management Plan, the Lake Improvement Plan, and the three current reservoir land use plans that have been initiated. Previously completed land use plans have used a multi-disciplinary planning "core team" process which included various program specialists who rated land capability/suitability for future land use designations. The essential elements of land use plans include: Reservoir Description, Planning Process, Planning Issues and Objectives, Planned Land Uses, Reservoir Tract Description/Allocations, and Implementation. Public involvement and input are also a significant part of the planning process and include public meetings, workshops, media coverage, mass-mailings, and public comment periods.

Forest Service:

The Recreation Opportunity Spectrum (ROS) is used to establish planning criteria, generate objectives for recreation, evaluate public issues, integrate management concerns, project recreation needs and demands and coordinate management objectives.

The ROS system is used to develop standards and guidelines for proposed recreation resource use and development.

The ROS system guidelines are used to describe recreation opportunities and coordinate with other recreation suppliers.

The individual National Forests are not required to provide recreation opportunities in each ROS class (-six classes: primitive, semi-private non-motorized, semi-private motorized, roaded natural, rural, urban).

Urban opportunities are not provided for with appropriated or other public funds where the ROS urban class can be provided for by private sector funds and available private land.

Where projects are located within or almost totally within the exterior boundaries of units of the National Forest System, the Forest Service administers the recreation resources, unless the constructing agency and the Chief of the Forest Service mutually agree otherwise.

Where projects involve only minor areas within National Forests, both the development and administration of the recreation resource are the responsibility of the constructing agency (or its designee) unless the constructing agency and the Chief of the Forest Service mutually agree otherwise.

Conclusions:

The review of planning policies & guidelines for those agencies associated with the National Recreation Lakes Study indicates that all have an adequately structured planning process which

will logically assess and include recreation, in general, and water-based recreation where appropriate. Plan reviews are usually scheduled for 5 year intervals, but flexibility exists for earlier amendment and modification where conditions or demand changes.

Key planning elements are in place and utilized in the planning process. Agencies use a comprehensive planning process tied closely to the NEPA requirements to ensure full consideration of environmental affects. Public review and comment is an integral part of the process, ensuring the broadest input from non-Federal agencies, stakeholders and the concerned public.

Therefore, the process by which recreation is considered in management plans appears to be adequate. In order for recreation use at Federal lakes to be given greater consideration, agency leadership must give it a higher priority in the planning criteria for each management plan.

Recommendations for consideration:

1. The planning processes of the Federal agencies are tailored to specific missions designed for each agency and should not be merged into a single format.
2. Flexibility should remain with the agency to modify its planning process as necessary, responding to particular conditions or issues and the affect they have on mission responsibilities.
3. Providing for water-enhanced recreation within agency management plans should be given due consideration and included in the early planning and decisionmaking process.

Task 11 Identify Barriers to Private Sector Development at Federally-Managed, Man-Made Lakes and Reservoirs

INTRODUCTION

Section 1021 of the Omnibus Parks and Public Land Management Act of 1996 (Public Law 104-333) requires the Commission to “develop alternatives for enhanced recreational use of such facilities through creative partnerships involving Federal, State, and local governments and the private sector.”

One of the tasks of the Commission work plan is to identify barriers to private sector development at federally-managed, man-made lakes and reservoirs.

APPROACH

Working with consultants, the study staff designed a workshop to identify the barriers to private sector development at federally-managed, man-made lakes and reservoirs. Representatives of the private recreation industry, States and Federal land management agencies were invited to meet in Memphis, Tennessee on April 20-22, 1998 to participate in this workshop.

Each participant was asked to identify three significant barriers to public/private partnerships, to suggest ways to overcome them, and to submit their ideas to the meeting planners before the workshop.

At the workshop, a case study of a successful partnership was presented that included the identification of barriers to the partnership and how the barriers were overcome. The participants then worked together through three sessions to identify barriers, identify possible resolutions, and develop strategies to put the resolutions into action.

EXAMPLES OF BARRIERS AND WAYS TO OVERCOME THEM

The participants identified 94 barriers and arranged them into six broad categories:

- Attitudes/Agency Culture
- Regulatory/Legal Issues
- Resources: People/Skills/Finances
- Economics
- Mission Clarification
- Political Concerns/Public Concerns.

Examples of the barriers identified and recommendations on how to overcome those barriers include:

- Need for/lack of mutual understanding/knowledge.
 - Develop principles and an education process (learning forum) for forming partnerships.
 - Establish understandable, measurable, clear, and concise goals.
 - Develop principles and goals as a team effort.
 - Recommend senior/mid-level management conferences between agencies and partners.
- "Nothing in it for us!" No benefits to local land manager.
 - Return revenue to agency location that produces it for Operation & Maintenance (O&M) and capital improvement unit without further appropriation or offset.
 - Find ways to allow project to capture savings.
- Agencies tend to be reactive rather than proactive, e.g. going to construction.
 - Establish a task force within agencies to aggressively pursue improvement projects for selected lakes (5-year terms).
 - Establish a recreation advocate within the agencies to look for private sector partners for these projects.
- Agencies processes are often too slow to respond in a timely manner to industry market needs.
 - Create a decision model that allows agencies to select the priority work with a methodology similar to the private sector economics model. Need to adopt sound business principles to focus agency attention on priority.
 - Evaluate the importance of private/government partnerships within the agency.
 - If the agencies do proper planning and project assessment prior to implementations, the process would be shortened in perspective to the length of time actual contract/lease alluding process takes.
 - Reinvention of process to streamline for working with industry. Evaluate process, determine problem areas, and reinvent. Establish demo project before allowing government-wide application. See what works!! Use market place model to establish priorities within Federal agencies.
 - Allow local and State governments to facilitate planning and administration processes rather than Federal bureaucracy.
 - Establish a single government point of contact, with the authority to work with all groups.
 - All parties to a partnership shall acknowledge up-front the time frame required.
 - Approve any foreseeable actions early.
- Recreation is NOT a primary purpose of use at Federally-managed lakes.
 - Borrow "private" model on decision making.
 - Provide cost-sharing that encourages non-Federal management of new areas.
 - Legislate retroactively to give Federal lakes recreation purpose, with appropriate funding.
- Lack of capital available in the public and private sector for development.
 - Seek alternative sources of funding through agency budget processes.
 - Seek political support for appropriation of lake recreation cost-sharing programs .
 - Give priority to cost-sharing partnering.

EXAMPLES OF STRATEGIES

- Define recreation in terms that are measurable and are of benefit to the American people, both economic and social.

- Establish a National Recreation Lakes Study Pilot. It may be best to conduct a trial program with 8-10 lakes that do not have physical/legislative or other major constraints. Incorporate partnership planning and tie to reinventing government. The pilot must show success early with measurable results. Lakes selected would cover the full span of Federal agencies; i.e. Corps of Engineers, TVA, BOR, BLM, FWS, FS, and NPS.
- Recommend proposing legislation that defines common goals for the management and development of our nation's Federally-managed lakes. Legislation would:
 - Establish a common mission.
 - Establish recreation as an authorized purpose of all national lakes.
 - Allow cost-share for development of O&M.
 - Provide skilled and knowledgeable staff for support of partnerships.
 - Promote management and development of our national lakes.
 - Establish agency accountability at agency level for program through the Government Performance and Results Act (GPRA).
 - Establish demonstration program.
 - Establish and support educational and training programs.
- Legislatively amend the authorization for all Federal lake projects to include recreation as an equal purpose.
- Recommend legislation to establish a national recreation foundation that would:
 - Support all agencies
 - Support education
 - Find sources of funding
 - Facilitate partnerships
 - Build constituencies

CONCLUSIONS

Education, information exchange, and effective communication skills appear to be critical strategies for overcoming the barriers that were identified.

In reviewing the reports from the working sessions at the workshop, it is clear that many barriers are relationship-related. The participants said repeatedly that successful partnerships are built on successful relationships that are built over time. As those relationships develop, trust between partners increases and the ability to honestly discuss and arrive at mutually beneficial resolutions increases as well.

It is also clear that some of the barriers are real and some are imagined. But because “perception is reality,” if a partner believes that something is a barrier, then that issue must be dealt with.

Federal land management agencies which provide the public with outdoor recreation opportunities need to have uniform policies relating to partnerships with state and local governments and the private sector. A common set of GPRA performance standards would also be desirable.

The identification of reliable funding sources for the development and long-term maintenance of the infrastructure related to public/private partnerships is critical to the successful implementation of partnerships for providing public outdoor recreation opportunities.

There are insufficient opportunities for potential partners to meet to build relationships and breakdown the barriers of ignorance and fear of the unknown in the development of partnering opportunities.

PROPOSED STRATEGIES FOR OVERCOMING BARRIERS

1. Legislation to establish an Outdoor Recreation Foundation which could foster improved understanding between potential partners and the provision of public outdoor recreation opportunities, support all of the land management agencies, and assist in locating funding sources for the development of partnerships to provide public recreation opportunities.
2. Legislation to establish a National Recreation Lakes Study Pilot on a limited number of lakes. Incorporate partnership planning and tie to reinventing government. Lakes selected would cover the full span of Federal agencies; i.e. COE, TVA, BOR, BLM, FWS, FS, and NPS.
3. Recommend to the Secretaries of the Interior, Army, Agriculture, Chairman of the Tennessee Valley Authority, National Governors' Association, the National Association of County Administrators, the National Conference of Mayors, and private industry, that they collaborate in the sponsorship of interagency meetings involving partnering representatives from all levels of Federal management, State, local governments and the private sector to breakdown the barriers of ignorance and fear of the unknown in the development of partnering opportunities.
4. Recommend establishment of an Interagency Recreation Coordination Council which would meet quarterly to discuss current recreation issues and work toward consistent application of recreation policy and recreation Government Performance and Results Act performance measures. Membership would include the BIA, BLM, BOR, COE, FS, FWS and TVA.

Appendixes

- A. List of Barriers
- B. Ways to Overcome Barriers
- C. Proposed Strategy for Overcoming Barriers

Barriers that stand in the way of developing partnerships for providing enhanced recreation opportunities around Federally-managed lakes.

The following barriers were identified by category.

1. Attitudes/Agency Culture

- 1.1 Some agencies may have a bias against uses that have high public demand
- 1.2 No proactive marketing "OFFICE" support
- 1.3 Need for/lack of mutual understanding/knowledge
- 1.4. "Nothing in it for us!" no benefits to local land manager
- 1.5 Agencies tend to be reactive rather than proactive, e.g. going to construction
- 1.6 Government Performance and Results Act. Agencies have unrealistic expectations of implementation of the Act - not a barrier
- 1.7 Agency inability to identify these partnerships as priority work and as part of their mission (staffing/budget incentives/procedures manifestation) - not manifest
- 1.8 Uncle "FREDDIE"(Federal Government) knows BEST mentality
- 1.9 Agencies exert too much control and stifle partnerships by conditions of permit/agreements Terms and conditions for long-term financing
- 1.10 Agency management distrust of private sector's motive and lack of understanding of private sector's needs
- 1.11 Lack of understanding between public and private entities
- 1.12 Public and government misconceptions on the financial success of the concessionaire (operation of concession).
- 1.13 Attitude of the public in the Federal user fees. National forest user fee vs. lift tickets, boat launch fees, or access fees to get to lakes. Many times the public believes the user fee is all-inclusive
- 1.14 Mutual benefit: Government doesn't understand MUTUAL benefits
- 1.15 Perception that private industry is exclusively self-serving. May be philanthropist too
- 1.16 "Will work for others but not for us." RC factor=Resistance to change
- 1.17 Public, government, private all working together????
- 1.18 Federal promotion policy - unwilling to take risk (transfers)
- 1.19 Need common agreements on recreation cost benefits, as compared to other project benefits
- 1.20 There is an ignorance of the private sector and government so there are frustrations and misunderstandings about each other
- 1.21 Changes in agency personnel
- 1.22 Lack of authority on the local level
- 1.23 Lack of Corps coordination, and inconsistency between districts (most States are in multiple districts)
- 1.24 The mass bureaucracy that the Corps has in dealing with private and State government is a huge barrier to timely development of recreation opportunities. The Corps can or will not be partners in development/rehab of facilities.
- 1.25 The Federal agencies' (Corps of Engineers) policy that they cannot and will not be partners in maintenance and operation of a partner operated facility
- 1.26 Oversight of partners by the Federal Government

2. Regulatory/Legal Issues

- 2.1 Local laws can be barrier, e.g. alcohol in local restaurants
- 2.2 Planning process "kills" project
- 2.3 Inconsistency(s) between various agencies' rules and regulations and management policies
- 2.4 Lawyers' opinions vs. facts
- 2.5 Agencies processes are often too slow to respond in timely manner to industry market needs
- 2.6 Federal rules and regulations
- 2.7 Recreation is NOT a primary purpose of use at Federally-managed lakes
- 2.8 Advertisement. Federal requests for advertising works against innovations. (sponsorships cause-market)
- 2.9 Difficult to get agreement between agencies and environmental mitigation.

- 2.10 Blanket policies...lack of differentiation of categories of concessions. Getting the wrong permit can leave the concessionaire out of luck
- 2.11 Burdensome unnecessary oversight of State and local, private partners
- 2.12 Short-term leases. Some Federal agencies do not allow a long enough lease term
- 2.13 Corps of Engineers cannot contract services with State and local governments
- 2.14 Liability requirements
- 2.15 Lack of specific authority to market
- 2.16 Fee competition with the Corps of Engineers (Corps continue to operate low cost facilities)
- 2.17 The Endangered Species Act & the National Environmental Policy Act

3. Resources/People, Skills, Finances

- 3.1 Inability of agencies to respond during budget calendar cycle to an opportunity
- 3.2 Skills
 - Federal agencies lack of skills to achieve partnership e.g.. (engineering, biology, etc..) vs. business skills/social skills/"partnership"
 - planning skills - economic - community not supporting - do we go through the red tape process - building alliances -
- 3.3 Lack of awareness and knowledge of procedures of each partner
- 3.4 Policies and regulations and interpretations of these
- 3.5 Find out which authority has jurisdiction
- 3.6 Outdated resource management plans. Plans which don't authorize development of desired facilities and services
- 3.7 Notion of the confusion between the changing roles of different agencies. - Federal players - gatekeepers
- 3.8 Lack of personnel with the expertise to enforce the plans and regulations. Haven't replaced the expertise we lost in downsizing
- 3.9 Select the most financially viable and leave the unprofitable for others
- 3.10 Cost of overhead in Federal Government partnership is too great
- 3.11 Lack of capital available in the public and private sector for development
- 3.12 Corps of Engineers facilities are costly to maintain because they are deteriorating, not accessible, aging, and inadequate
- 3.13 Lack of water, sewer, and access roads to developable areas on Federal projects
- 3.14 Most States do not have finances to enter into partnerships in significant numbers
- 3.15 Conflicting priorities of the type of recreation facilities (boat ramp vs. marinas)

4. Economics

- 4.1 Long-term commitments or short-term commitment. TIME
- 4.2 Substandard performance by private sector
- 4.3 Development and maintenance of infrastructure to get user to the lake
- 4.4 Economics
 - can it be self-supporting
 - are they going to operate for 5 yrs and take the profit and run
- 4.5 Length of concession leases: (Terms) Seems the leases are too short to make the investment worthwhile in many cases
- 4.6 Funding for resources of both public and private for improvement. Where will it come from?
- 4.7 Rights of renewable leases for concessionaires, if there is a doubt about renewability, incentive to invest is greatly diminished. Lack of preference in renewing
- 4.8 Timing and cost of Federal environmental processing and documentation
- 4.9 Additionally, the ability to understand up front what the costs and time frame may be to decide whether to get involved in the project
- 4.10 Possessory interest (fair market value) Who owns the facilities/improvements at the end?
- 4.11 Constraints on prices of goods and services sold.
- 4.12 High cost of improvements at these Federal places puts up barriers of who is willing to take the risk

- 4.13 Concessionaire fees; inequitable sharing of revenues. Highest return directed toward the highest risk
- 4.14 Disposition of fees, when not used to maintain or improve Federal infrastructure or Federal services, and instead put into General Treasury, there is a likelihood of decline in the appeal of the Federal project to visitors and concessionaires. (percentages/returns)
- 4.15 Federal trend towards others to balance the budget. Give away expenses. Divestiture?
- 4.16 Lack of infrastructure to support investment by the private sector. New development-do we want the private sector to develop lakes without access?
- 4.17 Feds are downsized to the point they can't administer and enforce the plans and regulations. The lack of personnel to administer plans and regulations
- 4.18 What we have now is all that we will have. Constrained base for opportunity along with rising demand for water recreation. Probably won't be MORE lakes
- 4.19 Education and attitude on the part of Federal water project managers
- 4.20 Lack of potential for return on investment (public interest and financial benefit)

5. Mission Clarification

- 5.1. Mission statements are different! (Corporate mission statements) -Taking a lot of hits and another owner - takes a hit. Dealing with standards that were ineffective in 1985-1987
- 5.2 Compatibility of recreation uses with establishing authorities for an area for primary purposes. -identify if water control -waterfowl - jet ski
- 5.3 Lack of consistency in process between agencies; and lack of agreement on what the process is
- 5.4 Inability of governmental agencies becoming an educational source of what was approved (endorsement of project) endorsement phobia-agencies do not want to appear to endorse a product or private sector recreation provider
- 5.5 Lack of marketing efforts
- 5.6 Corps facilities not designed for revenue production
- 5.7 Money - line item for recreation within recreation is not primary project purpose and is not a line item in the Corps' budget
- 5.8 Primary project purpose vs. recreation (example: flood control)

6. Political Concerns/Public

- 6.1 Lack of planning and lack of political pressure -don't damage the resources
- 6.2 Conflict between profit for private sector vs. agencies role in low COST recreation (User) opportunities. Clarification - Who will pay for the cost?
- 6.3 Opposition from existing commercial development and local landowners and environmentalist
- 6.4 Requires legislative action
- 6.5 Obtaining necessary approvals. Role of the courts after everything is approved
- 6.6 Political agendas
- 6.7 Conflicting mission statements for different Federal agencies. Need enabling legislation
- 6.8 Ability to balance stakeholder views
- 6.9 Do what is right, not what is popular
- 6.10 Political influence of private property owners vs. right of access to public water
- 6.11 Adverse impacts to natural resources/cultural resources

Solutions to overcoming barriers

Barriers Category: Attitudes/Agency Culture

1.3 Need for/lack of mutual understanding/knowledge		
Group A Solutions	Group B Solutions	Groups C Solutions
<ul style="list-style-type: none"> <input type="checkbox"/> Principles, process education (learning forum) for forming partnerships <input type="checkbox"/> Goals (understandable and measurable) (clear and concise) <input type="checkbox"/> Incorporating goals in education/more into community process <input type="checkbox"/> "Do as team effort" <ul style="list-style-type: none"> +creates consistency -education or persuasion (feel that education is a form of persuasion) (unfair because you need to give the rules of the game prior to starting. Do not feel this is persuasion) <p>COMMENTS: All parties participate in planning. Each entity work to ensure their process/requirements meet the identified goals/objectives. Keep focused on the GOALS.</p> <ul style="list-style-type: none"> -Foster better communication between all sectors. Establish process to open lines of communications. See what works and model process after it (example: Partners Outdoors excellent forum for this to occur.) Use success as models. -Create an institute of learning forums for both private and public partners (PAIRS). -Clear educational basics resulting in mutual understanding of proposal and process that will be utilized in achieving that goal. Develop care of experts/private and public to work in conjunction on project proposals. (e.g. financial expert, agency expert, local expert, etc....) -Each government and private entity should be involved in the front-end to share knowledge (ref: their particular area). Also, during this time, it allows for an opportunity to make sure everyone has a mutual understanding. A follow-up with minutes further clarifies points in the meeting. 	<ul style="list-style-type: none"> <input type="checkbox"/> Recommend senior/mid-level management conferences between agencies and partners (sponsored by a private benefactor). Team (Partners Outdoors). <input type="checkbox"/> Prior planning and communication involving key players for plan and process. <input type="checkbox"/> Continuity in personnel (by reward system or promotion without moving). <input type="checkbox"/> Train/Hire/contract for appropriate expertise. <input type="checkbox"/> Guidebook of policies. White paper. <p>COMMENTS: Barriers 1.10, 1.11, and 1.20 are all tied in with this barrier. Partnership levels need to be involved at this meeting level. Players always change, so the plan changes (moving for promotional purposes)</p> <p>Partnership for outdoors in Florida to bring all together, but we need at a local level. Need a diverse team at the planning level.</p>	

<p>COMMENTS Continued: Clearly some kind of educational forum is needed to educate the different players to the need and wisdom of working together. Perhaps there is a function for the National Recreation Lakes Study Commission once it is in place. Subsequent to national or regional forums, instructive papers would be written and published and circulated by staff. It will help everyone to understand that we are only addressing designated recreation lakes, not the whole jurisdiction, although, hopefully this experiment would set precedence.</p> <ul style="list-style-type: none"> -Train and assign project leaders, establish measurable goals. -Set-up a series of workshops on issues of public/private partnership and video them for others to view. Write a series of "Understanding" guides and make available to all players. Develop goals, principles, and process of partnerships. <ul style="list-style-type: none"> +same information and discussing available to all +high availability -cost of workshops would be high due to professional video -printing costs and distribution -Develop the goals and principles of public/private partnerships program. Raise understanding, acceptance and support for the goals principles and "HOW TO" by holding learning sessions, workshops, developing a video and written material to support this partnership program. Projects and field program should incorporate the partnership goals and principles early in the process of development. -clear education basis -establish lines of communications -involving everyone on the front-end of planning -conduct educational forum -workshops -use of media - seek others -web site -education with measurable goals 		
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1.4 "Nothing in it for us!" No benefits to local land manager.		
Group A Solutions	Group B Solutions	Groups C Solutions
	<p><input type="checkbox"/> Return revenue to agency location that produces it for O&M and Capital improvement unit without offset.</p> <p>COMMENT: Provide local managers with salary incentives.</p>	<p><input type="checkbox"/> Find ways to allow project to capture savings</p> <p>COMMENTS: Add partnership management to performance review criteria - Recognition of successful partnerships</p>

Barriers Category: Attitudes/Agency Culture

1.5 Agencies tend to be reactive rather than proactive, e.g. going to construction.		
Group A Solutions	Group B Solutions	Groups C Solutions
	<p><input type="checkbox"/> Fund a task force or unit within agencies to aggressively pursue improvement projects for selected lakes (5-year terms). Recreation advocate within the agencies (not penalized for succeeding if someone doesn't like the idea) to go out looking for these projects in private sector.</p> <p>COMMENT: Template for whole country in all areas.</p>	

Barriers Category: Attitudes/Agency Culture

1.7 Agency inability to identify these partnerships as priority work and as part of their mission. (staffing/budget incentives/procedures manifestation) - not manifest		
Group A Solutions	Group B Solutions	Groups C Solutions
<ul style="list-style-type: none"> <input type="checkbox"/> Mission policy law --establishes in a measurable time the formation/implementation of partnerships that enhance public benefit -- getting bureaucrats to agree on words. <ul style="list-style-type: none"> +clear +simple +affects all levels +bottom-lines is better for all in together <input type="checkbox"/> Accountability within parameters to measure success of managers in implementing partnerships with incentives. Need buy in by leaders (staffing funding - FTE's) <ul style="list-style-type: none"> +see quick results +employees get rewards -part of job; don't need incentive -opportunity for inappropriate partnerships <input type="checkbox"/> Making leadership accountable for partnerships results - celebrate success and share (e.g. partners outdoors) <ul style="list-style-type: none"> +know this works +promotes many successful partnership -run risks of losing good mangers who do not want to do!! -"all is good" <input type="checkbox"/> Linkage (Gore, budget, supply/demand, politics, DOI) <p>COMMENTS: Policy letter signed jointly by all effected Federal Agency leaders raising importance of partnerships (+simple) (-executives may not agree) . - Budget dollars for it and it will happen! (+this works!!)(-new line item). -Form a National Lakes Foundation to support partnerships. (+works -see National Park Foundation) (- regulates a law).</p>		<ul style="list-style-type: none"> <input type="checkbox"/> See barrier 3.2

COMMENTS Continued: -Assign key staff to facilitating partnerships as primary duty. A clear mission needs to be developed for all agencies that manage Federal lakes which requires or provides incentives to establishing partnerships that will enhance public use. -The only effective ones I can see for overcoming agency inability to identify partnerships for recreation opportunity as priority work and part of their mission is to mandate that recreation shall be part of their mission and have each agency staff, budget and adopt procedures for implementation of the development, maintenance and operation of recreation facilities on designated National Recreation Lakes under their jurisdiction. -Time lines staff assignments need to be made with specific duties assigned. Sharing of resources is important. -Provide and promote buy-in by an agency officials to promote partnerships as an acceptable way of doing business. Empower with parameters and accountability. Hold a partnerships conference or whatever to start the process. Then market the process and the agency buy-in to agency and public. -Leadership-agency leaders might agree to the priority and communicate this to their staff and take action when staff fails to act. Agency leaders might be led in turn, by elected officials. Elected officials must be convinced by the voting public or special interest. Either the public or a special interest might convince the elected officials. FERC model new law gave "equal" status to recreation. -Collaborate with private sector business consultants to develop a "priority work decision" Model that provides for agencies with broad public missions, to focus their work efforts where they will yield the optimum benefit. (+become more business) (+responsive to NPR) (+increases productivity)(+builds constituency)(-will bring out a substantial "RC"). -Skills education of top line managers and those responsible. Give them the understanding necessary to initiate partnerships. Sharing between entities that allows crossing of ideas and understanding. Awareness of issues - consistency on individual

<p>COMMENTS Continued: Establish partnerships as priorities and include in mission. -Inform the leadership of the political, real, and financial benefits of the partnerships in GPRA. -leadership in an agreement. -jointly with all agencies. -need to educate the managers; they have no clue what their opportunities are. -leadership key staff assigned to primary duty to partnershiping. -managers of lakes need to set as a priority. -leadership clean-out to the leadership and managers - may increase the priority. -tie our wagon to a bigger first - put the public customer first - attitude change - our attitude has been in the past GOVERNMENT - Mission statement that puts the priority on the books (needs to be measurable).</p>		
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Barriers Category: Attitudes/Agency Culture

<p>1.9 Agencies exert too much control and stifle partnerships by conditions of permits/agreements. Terms and conditions for long-term financing.</p>		
<p>Group A Solutions</p>	<p>Group B Solutions</p>	<p>Groups C Solutions</p>
		<p>□ Minimize oversight through appropriate negotiation, clearly delineate remaining rules --customize contract to facility --local conditions, etc.</p>

Barriers Category: Attitudes/Agency Culture

1.17 Public, govt., private all working together????		
Group A Solutions	Group B Solutions	Groups C Solutions

<p>□ The concept of public government and private working together is fundamental to the success of a national recreation lakes system. It should be spelled out as part of the mission and faithfully adhered to.</p> <p>COMMENTS: -Stay in touch with all levels, attend county committee meetings, etc., talk with other governments State and local. Work on more than one.</p> <p>-Process for change, note success in agencies and see what works and what does not work. Build on success. Based on a true established process. Take a more active role in fastening relationships.</p> <p>-Institute the "Communitarian Model," of public involvement promoted by the Pinchot Institute for Conservation. (+saves creating a new model, - costly)</p> <p>-Planning permitting that is inclusive on the front-end, flexible in process, and flexible in implementation.</p> <p>-Offer initial sessions networking to first assess potential problems and propose acceptable alternatives in resolving those issues. (+up-front early buy-in to project, +early recognition of profit scope and potential problems needing to be resolved.)</p> <p>-All parties must work together for a positive outcome to occur.</p> <p>-The concept of public, government and private all working together in fundamental to the success of establishing a National Recreation Lakes system. It should be spelled out by the National Recreation Lakes System and followed instead of falling back on the "Old" thinking of the various Federal water resources management agencies that they have their charge and will continue to adhere to it. Times have changed. Patterns of use of water bodies have changed. The Federal agencies should adjust to the times.</p>		
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<p>COMMENTS Continued: Start round table discussion with all parties at early point in process of project. (Any party can call the meeting) (+simple, -too many meetings may be called for personal agendas) -Highlight successes where this has worked, reward participants -private, public make sure all players know about successes (+lead by examples, -some players may not get the word.)</p>		
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Barriers Category: Attitudes/Agency Culture

<p>1.18 Federal promotion policy - unwilling to take risk (transfers).</p>		
<p>Group A Solutions</p>	<p>Group B Solutions</p>	<p>Group C Solutions</p>
<ul style="list-style-type: none"> <input type="checkbox"/> recognizing opportunity <input type="checkbox"/> reward, incentives <input type="checkbox"/> allow for risk-taking <input type="checkbox"/> create interagency teams, incentives dis-incentives (part of culture) <input type="checkbox"/> concept has become part of culture <input type="checkbox"/> create resource for managers to turn to in understanding how to make informed decisions on risk-taking <input type="checkbox"/> leadership/environment, reasonable change in behavior <p>COMMENTS: Design personnel procedures and programs that reward successful long-term performance in a site managers position. Design more manager positions with upward mobility in mind. (+data shows that there are more rewards than grade, -many OPM rules work against this). -Federal Government agencies need to adopt policies that reward managers for establishing productive partnerships.</p>		

<p>COMMENTS Continued: -Experience with Federal agencies, especially those with a military-type command. Where staff is rotated in and out of positions every three or four years, is that the personnel are indeed reluctant to make any courageous, controversial decisions that might jeopardize career advancement. Perhaps, the answer is to staff people (recreation specialists) responsible for recreation on Federal lakes with civilian, civil service types who will not be so sensitive to the "fall out" of their decision-making on their career advancement.</p> <p>-All of this "Federal" policing attitude is learned. Life is a risk and without risk nothing good will happen or grow. Rule: without advertising or promoting nothing happens.</p> <p>-Provide managers with incentive to complete projects to ensure continuity of services to area, locals and public constituency. (+encourage managers to see project through, -danger to future promotion opportunity.).</p> <p>- Unwillingness to take risk is a personal sociological phenomena not limited to Federal employees. Outstanding and or successful people take risks in whatever endeavors.</p> <p>-Team up with the recommendations of the Al Gore Reinvention Report on Empowering Employees to get results CHAPTER 3. (+existing solution (proposed), +creates a powerful ally, - time-consuming).</p> <p>-Reward agency for risk-taking. Agency see what works duplicate and establish process.</p> <p>-Calculate the real risk. Do not postulate the potential. Incorporate taking risk as a positive rather than negative. Spread risk VIA.</p> <p>-empower employees to get results</p> <p>-create multi-agency task force -rather than change agency policy</p>		
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Barriers Category: Attitudes/Agency Culture

1.23 Lack of Corps coordination, and inconsistency between districts (most States are in multiple districts).		
Group A Solutions	Group B Solutions	Groups C Solutions
		<input type="checkbox"/> Further existing trend towards regionalization, and develop consistent processes for business functions

Barriers Category: Attitudes/Agency Culture

1.26 Oversight of partners by the Federal Government.		
Group A Solutions	Group B Solutions	Groups C Solutions
<ul style="list-style-type: none"> <input type="checkbox"/> If law, amend the law <input type="checkbox"/> If policy, review and change the policy across all agencies/Federal lake projects to eliminate their restriction <input type="checkbox"/> P.L. 89-72 thus provides for cost-sharing opportunities <input type="checkbox"/> Both capital improvement and o&m <p>COMMENTS: Amend PL 89-72 to clarify and encourage capital improvements and O&M cost-sharing between all Federal agencies and local partners for new and existing recreation projects.</p> <p>-Use lakes study to design general lake policies that override agencies policy or behavior that limits hours restriction. (+can be done through the study, -must have general agreement)</p> <p>-Review policy-recommend changes if necessary. Ask why policy was made in the first place?" and to what or whose benefit.</p> <p>-Why the Federal agencies may not shift budget priorities and provide these items in their budget to help share O&M cost with other partners. May be a consequences of policy (for some) or statutory requirement (for others) amend law to clarify that the agencies may cost-share.</p> <p>-Congress earmarks dollars for agency infrastructure improvements with priority given to cost-share opportunities that leverage more work for some.</p> <p>-not a barrier - do a "Financial Analysis"</p> <p>-Review the policy in a public process or forum with an open mind and a willingness to adapt. Revise or amend the policy for the purpose of bettering the public best interest.</p> <p>-Look at other agencies policies that work in that area. Reclamation -- PL 89-72, Title 28.</p> <p>-Develop new policies that encourages full partnerships including O&M.</p>		

Barriers Category: Regulations/Legal Issues

2.1 Local laws can be a barrier (e.g., alcohol in local restaurants)		
Group A Solutions	Group B Solutions	Group C Solutions
<ul style="list-style-type: none"> <input type="checkbox"/> Incorporate county into planning process, including economic analysis that considers the pluses and the minus' of all local laws and regulations. <input type="checkbox"/> In the initial planning phase, identify and classify those laws and provide individual written solutions for specific areas. If the law prevents the sale of alcohol, what could be substituted in the product mix to provide financial stability? <input type="checkbox"/> Evaluate and understand realm of local laws to establish a cross-section of barriers and define solutions. Use Federal law as overriding over local legal law to overcome local regional barriers. Develop process for working with local entities to overcome local laws/issues. <input type="checkbox"/> Incorporate the county into the planning. Consider legal mandate regulations - political process - problem with attitude and work through negotiations -grounds of process change -legal process that one must go through. <p>COMMENTS: not a problem There are other solutions, find another way Local laws exist + MINOR PROBLEM Identify in the beginning Provide individual solutions Watch for jurisdiction -deal with them</p>	<ul style="list-style-type: none"> <input type="checkbox"/> This barrier is not unique to anyone whether you are in private industry or government. <input type="checkbox"/> Soliciting cooperation (encourage-secure) (buy-in) by local government, develop agreements that they must enter into before agreeing to the project. Put up sideboards (conditions) under which you will agree to the project. Make it clear. <input type="checkbox"/> Developers should promote development to local government. Feds can't tell local government that their laws are not good for business. Can't override local zoning laws. Involve Fed agency in the partnership, so they shouldn't sit back and leave it up to the developers, which is a barrier! 	<ul style="list-style-type: none"> <input type="checkbox"/> Include stakeholders early and often, promote compromise, create a forum for sharing and learning. <input type="checkbox"/> Disadvantage: Commitment, careful planning, staff effort, and time

Barriers Category: Regulations/Legal Issues

2.2 Planning process "kills" the project		
Group A Solutions	Group B Solutions	Group C Solutions
<ul style="list-style-type: none"> <input type="checkbox"/> Federal agencies should recognize the legitimate planning processes initiated at state, local or private level and not duplicate with their process when non-Federal partner sponsors or initiates a project. <ul style="list-style-type: none"> -- involvement of both parties -- driven by missions -- do not bring to the table an interest without coming to you first -- Federal rules is law -- can be a single planning process -- every agency requires public input <input type="checkbox"/> Front-end involvement by all involved. 	<ul style="list-style-type: none"> <input type="checkbox"/> Project Management to work with all groups. <input type="checkbox"/> Single government point of contact, with the authority to work with all groups. <input type="checkbox"/> Up-front acknowledgment of the time frame required. <input type="checkbox"/> Publication provided for policy procedures. Guide for those getting involved. (May Speed up/Slow down process). <p>COMMENTS: Develop a standardized policy manual to document time lines. How much money is available will determine time line. Turn planning process over to private developer (by contract). Develop more authority with partnerships (liaison-local person to work with all agencies) develop trust.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Create a set of guidelines (protocol) for creative planning <ul style="list-style-type: none"> --agreed-upon deadline for each event --include all Stakeholders --include a way to fast track the project --provide adequate resources/staff

Barriers Category: Regulations/Legal Issues

2.3 Inconsistency(ies) between various agencies' rules and regulations and management policies.		
Group A Solutions	Group B Solutions	Group C Solutions
<ul style="list-style-type: none"> <input type="checkbox"/> Evaluate for correlations, do not focus on law <input type="checkbox"/> Provide a Federal business clearinghouse <input type="checkbox"/> Operate from a Federal family approach <input type="checkbox"/> Need a clear mission for recreation, e.g. One Federal agency representing recreation (NRLS) <input type="checkbox"/> Agencies develop a consensus document. 	<ul style="list-style-type: none"> <input type="checkbox"/> Develop a Master set of Federal regulations, that defines processes required. <input type="checkbox"/> 1 set. All agencies buy into. <p>COMMENT: Develop an MOU for each partnership that defines which authority has precedence</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Establish (create) Consistency Review Committee where differences can be negotiated <ul style="list-style-type: none"> (-) top management may not agree with arbitration (-) not easy process with various agencies involvement (-) negative public perception (+) one- stop shopping

Barriers Category: Regulations/Legal Issues

2.4 Lawyers' opinions vs. facts.		
Group A Solutions	Group B Solutions	Group C Solutions
<ul style="list-style-type: none"> <input type="checkbox"/> Specialist in Solicitors Office to deal with recreation issues <input type="checkbox"/> Leadership should understand that the role of attorneys is advisory <p>COMMENTS: Only ask lawyers legal questions and consult with them on legal issues. Lawyers office could provide a number of lawyers that specialize in business opportunities. Make clear through leadership communications that lawyers are advisors to agency leadership. Seek a second opinion if first is not what you desire. Work with lawyers to better educate on the issues. A better understanding of the issues can aid in solution process. Federal lawyers should limit input on agency policy decisions to providing facts and avoid setting policy.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Education <input type="checkbox"/> Manage the lawyers, don't ask them, tell them what you need. Ask for MOU, not whether you can do it. Obstacles. <input type="checkbox"/> Involve lawyers early on in the process. 	

Barriers Category: Regulations/Legal Issues

2.5 Agencies processes are often too slow to respond in a timely manner to industry market needs.		
Group A Solutions	Group B Solutions	Group C Solutions
<ul style="list-style-type: none"> <input type="checkbox"/> Create a decision model that allows agencies to select the priority work with a methodology similar to the private sector economics model. Need to adopt sound business principles to focus agency attention on priority. <input type="checkbox"/> Evaluate importance of private/government partnerships within the agency. Complete fund transfers between agency programs. <input type="checkbox"/> If the agencies do proper planning and project assessment prior to implementations the process would be shortened in perspective to the length of time actual contract/lease alluding process takes. <input type="checkbox"/> Reinvention of process to streamline for working with industry. Evaluate process, determine problem areas, and reinvent. Establish demo project before allowing government-wide application. See what works!! Use market place model to establish priorities within Federal agencies. <input type="checkbox"/> Allow local and state governments to facilitate planning and administration processes rather than Federal bureaucracy. 	<ul style="list-style-type: none"> <input type="checkbox"/> Project Management to work with all groups. <input type="checkbox"/> Single government point of contact, with the authority to work with all groups. <input type="checkbox"/> Up-front acknowledgment of the time frame required. <input type="checkbox"/> Publication provided for policy procedures. Guide for those getting involved. (May Speed up/Slow down process). <input type="checkbox"/> Approve any foreseeable actions early <p>COMMENTS: Develop a standardized policy manual to document time lines. How much money is available will determine time line. Turn planning process over to private developer (by contract). Develop more authority with partnerships (liaison-local person to work with all agencies) develop trust.</p>	

Barriers Category: Regulations/Legal Issues

2.6 Federal Rules and Regulations		
Group A Solutions	Group B Solutions	Group C Solutions
<ul style="list-style-type: none"> <input type="checkbox"/> Estimate universal regulation (legislation) surrounding lakes/recreation with flexibility to level partnerships at the local level <input type="checkbox"/> NRLS draft legislation <input type="checkbox"/> Trial survey existing lakes to determine as to which lakes have a pilot <p>COMMENTS: -Transfer in fee title recreation lands not critical to primary project purpose (i.e. flood control, irrigation, etc.) to state and local government sponsors with caveat that lands have to be managed for public recreation. -Not a problem that can be addressed in general. Change specific rules that seem reasonable and worth the effort. -Review current regulations and prepare study on all agency regulations barriers and propose changes. -Reinvention in area of authority to allow partnership. Establish universal language specific to public and private sector partnerships, which allow flexibility and in establishing partnerships and contracts.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Sunset them, make Federal agencies justify the rules/regulations. <ul style="list-style-type: none"> - Advantage: makes Federal agencies look at them. - Disadvantage: History is reality. Changing rules. 	

Barriers Category: Regulations/Legal Issues

2.7 Recreation is NOT a primary purpose of use at Federally-managed Lakes.		
Group A Solutions	Group B Solutions	Group C Solutions
<ul style="list-style-type: none"> <input type="checkbox"/> Partner Federal with private to work on decision document <input type="checkbox"/> Borrow "private" model on decision making. <input type="checkbox"/> Provide cost-sharing that encourage non-Federal management of new areas <ul style="list-style-type: none"> - encourage State/Local - Federal Administration Cost Sharing \$ - Reclamation of Title 28 <p>COMMENTS: Agencies need to request specific legislation to address this issue according to the present "level of importance." Identify ways to work within legislative regulation confines.</p> <p>-Same as 2.5, create a decision model that selects the highest priority work based on business principles while incorporating the PUBLIC GOOD.</p> <p>-Evaluate the need to reauthorize Federal projects for outdoor recreation. Universal legislation, which provides for recreation authority. Work with industry, private and others to achieve universal legislation. Allow demo project to test case universal legislation before government-wide representation.</p> <p>-Delegate all recreation management on Federally-managed lakes outside NPS to single Federal agency with clear mission. Provide cost-share incentives to State and local governments that encourage non-Federal management.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Retroactive legislation that gives Federal lakes recreation purpose, with appropriate funding. <input type="checkbox"/> PublicLaw 89-72. (look at and use) <input type="checkbox"/> Make recreation an equal player. 	<ul style="list-style-type: none"> <input type="checkbox"/> Make recreation a primary purpose use through Congressional action <ul style="list-style-type: none"> (-) tough solution (+) public support

Barriers Category: Regulations/Legal Issues

2.9 Difficult to get agreement between agencies and environmental mitigation's.		
Group A Solutions	Group B Solutions	Group C Solutions

<ul style="list-style-type: none"> <input type="checkbox"/> Sit down together as partners and negotiate/mitigate as necessary especially at beginning of process <input type="checkbox"/> Planning should be site-specific rather than given parameters, who wants to work together? <input type="checkbox"/> Has to be general planning first <p>COMMENTS: Mediate settlement negotiations - negotiate.</p> <ul style="list-style-type: none"> -Incorporate private parties into mitigation package. -Identify mitigation issues in the planning process. Provide specific language in all agency contracts/leases that it address NEPA standards and allow feasibility for specific local concerns. -Establish process for agreement on issues surrounding mitigation. Test or demo with multiple projects. Site-specific planning and provide clear direction. -Substantiate environmental concerns are "REAL" and not just an excuse to use for not doing something. -Legislation for uniform approach to environmental mitigation, so that we are not dealing with apples and oranges from one jurisdiction to another. Skeptical that it can be effectuated by policy agreement without force of law. -Transfer administration of all recreation areas in Federal agencies without a clear recreation mission to a single agency with a clear recreation mission. -Agencies should resolve environmental issues through the planning process prior to involving the private sector. Planning should be site-specific to provide clear direction. -Put all affected agencies in one room with a mandate to resolve differences and come out with one mitigation measure. Have agency heads appoint a lead agency for each project to determine mitigation measures. 	<ul style="list-style-type: none"> <input type="checkbox"/> Policy change for negotiations in certain cases. <p>COMMENTS: Give bonuses for getting projects Same solutions as in 2.2 or 2.3</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Establish (create) Consistency Review Committee where differences can be negotiated (-) top management may not agree with arbitration (-) not easy process with various agencies involvement (-) negative public perception (+) one stop shopping
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Barriers Category: Regulations/Legal Issues

2.10 Blanket policies...lack of differentiation of categories of concessions. Getting the wrong permit can leave the concessionaire out of luck.		
Group A Solutions	Group B Solutions	Group C Solutions
<ul style="list-style-type: none"> <input type="checkbox"/> Review policy - is it reaching down too far into details? <input type="checkbox"/> Guidelines should reach down +clear understanding <p>COMMENTS: Review policies in public process to see if changes are needed.</p> <ul style="list-style-type: none"> -Legislation for uniform approach to concessionaire policy nationwide policy, not agency to agency. -Create test or pilot projects that have standard policies that are workable for all parties. -Design a clear and concise description of categories of concessions and set separate and appropriate rules for each. 	<ul style="list-style-type: none"> <input type="checkbox"/> Set thresholds based on dollars invested. <p>COMMENTS: Concession policies adapted to the size of the concession. Term length, possessory rights</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Contract should leave room for customization to help address the specific needs of that project

Barriers Category: Regulations/Legal Issues

2.11 Burdensome unnecessary oversight of State and local private partners.		
Group A Solutions	Group B Solutions	Group C Solutions
<ul style="list-style-type: none"> <input type="checkbox"/> Occurs primarily through Corps of Engineers. State/local has contracts with the private sector. Corps then has oversight <input type="checkbox"/> Limit Corps by Congress to only oversized projects with national <input type="checkbox"/> Address oversight up-front in initial arguments <p>COMMENTS: Oversight of some kind is needed. What is 'Burdensome or Unnecessary' is opinion. However, it could be worth some kind of review through interview. Focus groups or surveys to identify.</p> <ul style="list-style-type: none"> -Making sure that you have the right players from each entity so project development gets off to the right start. -Set clear and reasonable standards on oversight of operations and stay with it. -Eliminate oversight with TEST project that mission statement and regulatory approvals. -Need the oversight, but again it must be standardized. 	<ul style="list-style-type: none"> <input type="checkbox"/> Determine key areas of oversight, then drop others. <p>COMMENT: Determine what the key areas of oversight are.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Minimize oversight through up-front negotiations, etc., clearly delineate remaining rules <ul style="list-style-type: none"> (-) all work up front (-) takes time (+) saves time

Barriers Category: Regulations/Legal Issues

2.12 Short- term leases. Some Federal agencies do not allow a long enough lease term.		
Group A Solutions	Group B Solutions	Group C Solutions
<ul style="list-style-type: none"> <input type="checkbox"/> Nationally uniform concessionaires policy including <ul style="list-style-type: none"> +longer term leases +investments amortization time for return on investments <input type="checkbox"/> May take legislation <input type="checkbox"/> Federal business center/family new skill mix needed <p>COMMENTS: How short is short-term? Our agency allows 25-year leases to support capital facility grants. -If concessionaires need longer lease for capital investment, re-issue lease for longer period. -Leases should be 25-30 years with a 25 year option.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Base lease on economics (big/little). See 2.10 (Based on dollars invested) <p>COMMENT: If you sell off the land then it restricts use to all.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Develop a review process to allow longer and renewable leases

Barriers Category: Regulations/Legal Issues

2.13 Corps of Engineers cannot contract services with State and local governments.		
Group A Solutions	Group B Solutions	Group C Solutions
<ul style="list-style-type: none"> <input type="checkbox"/> Contract = partnership <input type="checkbox"/> OMB Circular (119) <input type="checkbox"/> Change policy if there is such policy <p>COMMENTS: The word “cannot” needs to be eliminated - anything is possible. -Give the Corps statutory authority to be able to contract out -If policy, review or possible amendment. If statute, it would be necessary to go through the political system to effect change. -Regulation change standard solution. Does the specific problem involve all affected groups? Draft proposed wording and get political support to pressure agency to change the regulation (within the law). If specifically outlined in the law Congress would need to be pressured rather than agency.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Change Corps of Engineers policy and budget funding. <p>COMMENT: Corps of Engineers cannot contract with the state to have joint management of maintenance. PL 89-72 says they can legally, but Corps has a policy that they can't.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Congressional action to allow cost-sharing for O&M and rehabilitation at Corps of Engineers facilities

Barriers Category: Regulations/Legal Issues

2.14 Liability requirements.		
Group A Solutions	Group B Solutions	Group C Solutions
<p><input type="checkbox"/> State has the regulative power Don't involve Feds in insurance issues at State level and build better partnership</p> <p>COMMENTS: Set by regulation of agency? Then use regulation change process. -Pass legislation that places a greater degree of liability on the individual. Waiver forms - making them legally acceptable. -Insurance requirements and rates are controlled on the State level with no Federal involvement. Contact State issuance office and require State established minimums. -Liability requirements can be prohibitive and counter productive to enticing public, private partnerships. For purposes of getting the National Recreation Lakes System off the ground, propose limitation on liability in the interest of the public welfare. There is precedent for this in State laws which limit the liability of laws which limit the liability of private land owner who allows public access to the water over their property. -Will someone have to be liable?</p>	<p><input type="checkbox"/> Meet the State laws.</p> <p>COMMENT: Defer to State standards.</p>	<p><input type="checkbox"/> Interagency task force to develop appropriate level of protection consistent with industry (involves mix of resource professionals, lawyers, concessionaires, insurance representatives) (-) will require time and resources not consistent with its value (+) may provide more accuracy for setting level of protection</p>

Barriers Category: Regulations/Legal Issues

2.15 Lack of specific authority to market.		
Group A Solutions	Group B Solutions	Group C Solutions
<ul style="list-style-type: none"> <input type="checkbox"/> More understanding within agencies on how to deal in advertising /providing info <input type="checkbox"/> Federal has facility - State has dollars <input type="checkbox"/> From an agency's point of view, this is the same as advertising <p>COMMENTS: This may not be a barrier - clarification of what is really being said may help. -Seek OMB approval on advertising restrictions. -Evaluate Federal requirements/barrier and propose new more user-friendly process. Expose FEDS to business world so they have a better understanding of marketing/advertising and can become the solution to the problem. Allow demo projects within government to test case. -Lease recreation areas to non-Federal partners i.e. local, State, or private.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Allow cooperation with State/local marketing efforts with money. <p>COMMENT: Lack of a will to market.</p>	

Barriers Category: Regulations/Legal Issues

2.16 Fee competition with the Corps of Engineers (Corps continue to operate low cost facilities).		
Group A Solutions	Group B Solutions	Group C Solutions
<ul style="list-style-type: none"> <input type="checkbox"/> Moot point <input type="checkbox"/> Secretary of the Interior economic comparability studies. (needed more info/interpretation) <input type="checkbox"/> Stay at prevailing market rate <p>COMMENTS: Explore all Federal agencies having the same fee structure. -Since the purpose of the system is to create new facilities and services to open untapped waters to recreation and would not worry so much about fee competition with Corps facilities. The impression is that due to budget constraints the Corps would be divesting itself of recreation responsibility, not stay in the business.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Sensitivity of local market conditions and full cost/comparable market cost? <p>COMMENTS: Issue has to do with Federal golden eagle passes. Go locally and see what they are charging and go with that. Concessionaire must say what he needs to make this a doable project.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Federal agencies set fees with consideration of cost recovery

Barriers Category: Regulations/Legal Issues

2.17 The Endangered Species Act & National Environmental Policy Act		
Group A Solutions	Group B Solutions	Group C Solutions
<ul style="list-style-type: none"> <input type="checkbox"/> Get involved with political process during regulations <input type="checkbox"/> Put in context of NRLS/environmental recreation <input type="checkbox"/> Reasonable enforcement - NEPA <p>COMMENTS: Reasonable enforcement and project basis will eliminate portions of the barrier. -Clearly there needs to be some reconciliation between the Endangered Species Act and the objectives of the National Recreation Lakes System. In areas of acute environmental sensitivity, naturally we would not propose the open of a water body to unfettered problem recreation opportunity; otherwise, there should be an effort to balance environmental and recreation values. -Both laws have been re-authorized within the last two years. Live with it!!! or work towards change in political process of re-authorization next time. -get involved in the political process during the authorization</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Change the law. <p>COMMENT: Assume no significant impact until proven otherwise.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Involve partners early and help them understand the process, laws, and regulations of Federal agencies so that NEPA regulations are not applied realistically. (-) may be considered <p>COMMENT: NEPA was not created as a project stopper</p>

Barriers Category: Resources/People, Skills, Finances

3.2 Skills - Federal agencies lack of skills to achieve partnership e.g.. (Engineering, Biology, etc,,) vs. business skills/social skills/"partnership"

Group A Solutions

Group B Solutions

Groups C Solutions

<ul style="list-style-type: none"> <input type="checkbox"/> Hire qualified staff (don't hire biologist to do a business plan) <input type="checkbox"/> Barriers 1.3 and 1.7 must be removed prior to developing skills so skill development matches <input type="checkbox"/> Train and develop for partnerships <p>COMMENTS: Establish staff expertise in partnerships and perform national interagency training with partners.</p> <ul style="list-style-type: none"> -Hire and/or a train personnel with needed skills who have assigned duties to facilitate partnerships. -Identify resources and utilize knowledge in other government agencies, contact universities, review reports/publications and call upon involved parties. If a person is going to have a job in a particular field they should have the background and knowledge in the job they were hired to do. -Hire specialist from outside industry to staff resource center. Educate required Federal employees on process to establish partnership organizations. - commit resources (funding) to effort. -Broader education of staff on partnership opportunities. Conduct info workshops to foster understanding of opportunities and requirements for established partnerships. Use do to aid in establishing programs to provide and broaden skills of managers and agencies staff. -Create resource center in partnership school for agencies to attend. -Agencies could pool or share skills e.g. educate/detail staff to forum interagency interdisciplinary teams. Recruit targeted needs in a carefully designed personnel strategy. -Develop the "TEAM" with all the skills necessary to have a partnership. Develop a team chapter that obtains the skills, in financial analysis, from a consultant or another agency to make the team complete. 	<p style="text-align: center;"><input type="checkbox"/></p>	<ul style="list-style-type: none"> <input type="checkbox"/> Congressional action to allow cost sharing for O&M and rehab at Corps facilities <p>COMMENTS: Train a small cadre of existing people and have them train additional people</p> <ul style="list-style-type: none"> -Agency needs paradigm shift; leadership needs to walk the walk and talk the talk with organization and budget support, and training, technology transfer <li style="padding-left: 40px;">(-) leadership believe that they are unable -Identify professional liaison to manage partnership process -Make business type training a prerequisite for management position
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<p>COMMENTS Continued: -Determine what will be the Federal agency business and from that identify the skills needed to achieve quality results. (+Government responsive to market, +more effective use of resources, -continued disruption of government). -Assign recreation specialist to the task, schooled and experienced in the kind of skills needed to achieve partnerships. Set-up a Recreation Office within each Federal agency instead of having the FEDS manage recreation as part of multiple mission responsibility.</p>		
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Barriers Category: Resources/People, Skills, Finances

<p>3.7 Notion of the confusion between the changing roles of different agencies. - Federal players - gatekeepers.</p>		
<p>Group A Solutions</p>	<p>Group B Solutions</p>	<p>Groups C Solutions</p>
		<p><input type="checkbox"/> Establish (create) Consistency Review Committee where differences can be negotiated</p>

Barriers Category: Resources/People, Skills, Finances

3.11 Lack of capital available in the public and private sector for development.		
Group A Solutions	Group B Solutions	Groups C Solutions
<ul style="list-style-type: none"> <input type="checkbox"/> Seek thru agency budget process alternative sources of funding <input type="checkbox"/> Seek political support for appropriation of lake recreations cost-sharing programs (Corps policy with Reagan not to do it) - reform agency policy <input type="checkbox"/> Give priority to cost-sharing partnering <input type="checkbox"/> See visit/seek '92 challenge cost-sharing authority of Corps of Engineers with States to rec parks <p>COMMENTS: Congress to appropriate money for cost-sharing infrastructure improvements with partners through PL 89-72.</p> <p>-Federal Government needs to recognize that all financial burden cannot be passed on to State and local government. Feds reap tax benefits but must be a financial commitment on their part for the growth of the county.</p> <p>-Check authority of agency. Establish that ROL is commensurate with investment and length of contract - innovative business commitment</p> <p>-Revisit need for legislative or revision of existing legislative - PL 89-72, Title 28. Encourage private development.</p> <p>-develop a ten-year capital plan for temporary REC opportunities on lakes to include the private sector.</p> <p>-Seek donations, volunteers, and grants. Approach Interest Groups for political support in the budget process.</p> <p>-Explore all alternatives, including budgets borrowing etc. to locate capital for construction.</p> <p>-Change internal agency policies to allow for expansion of cost-share.</p> <p>-Form line item budget for challenge cost-share for recreation on Federal Lake.</p>		

Barriers Category: Resources/People, Skills, Finances

3.12 Corps of Engineers facilities are costly to maintain because they are deteriorating, not accessible, aging, and inadequate.		
Group A Solutions	Group B Solutions	Groups C Solutions
		<ul style="list-style-type: none"> <input type="checkbox"/> Congressional action to allow cost-sharing for O&M and rehab at Corps facilities <input type="checkbox"/> Look at a partnership that considers all forms of revenue aside from appropriated funds (fund raising strategy needs often greater than fund raising) <input type="checkbox"/> Corps refurbishes outdated facilities; non-Federal sector to operate and maintain State/local <ul style="list-style-type: none"> (-)excludes partnership projects (-) funding for rehab areas not budgeted

Barriers Category: Resources/People, Skills, Finances

3.13 Lack of water sewer access roads to developable areas on Federal projects.		
Group A Solutions	Group B Solutions	Groups C Solutions

- Local community contributes to infrastructure construction
- Must have cost-share program authority and dollars dedicated for program purpose (also recreation e.g. trusts etc.)

COMMENTS: Put priority on infrastructure improvements on lakes with high priority for recreation development in partnerships.

-Encourage local community to spend more dollars to encourage recreation. They will benefit from development.

-This may not be a problem. Dispersed recreation should not be discouraged or displaced in any NRL system. Not all land can be developed or should be developed. Open space for dispersed recreation, habitat, and other multiple uses is valuable and important, though recognized that NRL's are not wilderness lakes.

-Include in the scope of the entire project in "full package" development concepts.

-Feasibility study for infrastructure is essential, it may turn out that project is not worthwhile. (+keep from spending a lot of unnecessary money)

-Develop partnerships with the private sector to accomplish infrastructure goals.

-Use partnership to provide beneficial with State and local governments for cost-share. Work with DOT to see what opportunities might exist through FED highway programs. Look within other government agencies for funding sources. Work with EPA, local communities to persuade cost-share funding through FED water quality programs on sewer.

-Communities surrounding lake project to contribute infrastructure, which they should be able to do through local lakes. They are economic beneficiaries of the tourism business spawned by the projects, they should share the cost of accessibility.

- Demand assessment to determine appropriate level of development
- Examine maintenance priorities before new development
- Develop cost-share approach with partners all at the table

<p>COMMENTS Continued: Put priority on infrastructure - identify lakes with potential -introduce local governments -develop partnership with local community to develop -Corps has more lake recreation potential than any other lake - not all land can be developed -encourage local communities to spend more dollars to develop</p>		
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Barriers Category: Economics

<p>4.3 Development and maintenance of infrastructure to get user to the lake.</p>		
<p>Group A Solutions</p>	<p>Group B Solutions</p>	<p>Groups C Solutions</p>
	<p><input type="checkbox"/> Develop partners cost-sharing programs (without defining partners now) for the development and maintenance of these infrastructures. Fees, revolving fund may be a part of this.</p> <p>COMMENTS: Create the demand for the facilities then they will respond. Major dollars to be invested to get it to be a viable site. Take advantage of partnership power. Fees go into fund to be spent to develop things that need to be developed (instead of general fund). Returning fees to the site 50% to new developments 50% to maintenance. Revolving funds available. Allocation of highway taxes to develop roads. Give incentives to private to invest (long term contracts, lower fees).</p>	

Barriers Category: Economics

4.4 Economics: Can it be self supporting? Are they going to operate for 5 yrs and take the profit and run?		
Group A Solutions	Group B Solutions	Groups C Solutions
<ul style="list-style-type: none"> <input type="checkbox"/> Evaluate in the beginning <input type="checkbox"/> Must be what people in area want <input type="checkbox"/> But must be economically viable <input type="checkbox"/> Do economic studies <p>COMMENT: When is it determined what recreation facilities are in demand, complete an economic analysis of the cost/benefit of construction and O&M.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Demonstrate economic viability. Come with support to show that it is viable, based on good, sound advice. Show all the costs that will be encumbered. (require business plan). Identify risks, and they can decide whether to go on with the project. <input type="checkbox"/> Change the terms/conditions of the lease to make the project viable. (longer leases, man-to-man ratios, money going back to project, subsidize) <p>COMMENTS: Whatever project there was is economically viable, doable! i.e. Link marina, and boat launch, with maintenance of substantial amount of land and it then becomes more appealing to the Federal agency, however may be less appealing to private investor. Remote areas may show not to be feasible and the area gets closed. Viability is centered on few areas, so tie to major sites a number of remote sites. Get local people at table in beginning to see they will benefit from the project.</p>	<ul style="list-style-type: none"> <input type="checkbox"/>

Barriers Category: Economics

4.10 Possessory interest (fair market value). Who owns the facilities/improvements at the end?		
Group A Solutions	Group B Solutions	Groups C Solutions
	<ul style="list-style-type: none"> <input type="checkbox"/> Clearly identify in the contract who owns this up front. Usually just depreciates and private still owns nothing in the end. Basically all agencies have a different policy. <input type="checkbox"/> Allow fair market value (FMV) for possessory interest of the improvements. <p>COMMENTS: Facility is making money so they must upkeep. Feds own land, private owns improvements.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Encourage investment and appropriate maintenance through possessory interest and allows private sector to participant in reduction of FMV criteria

Barriers Category: Economics

4.12 High cost of improvements at these Federal places puts up barriers of who is willing to take the risk.		
Group A Solutions	Group B Solutions	Groups C Solutions
		<ul style="list-style-type: none"> <input type="checkbox"/> Develop review process to allow longer and renewable leases

Barriers Category: Economics

4.14 Disposition of fees, when not used to maintain or improve Federal infrastructure or Federal services, and instead put into General Treasury, there is a likelihood of decline in the appeal of the Federal project to visitors and concessionaires. (percentages/returns)

Group A Solutions	Group B Solutions	Groups C Solutions
<ul style="list-style-type: none"> <input type="checkbox"/> Expand to all agencies existing fee demonstration programs. <input type="checkbox"/> Find ways to keep within not to go to General Treasury <input type="checkbox"/> Legislation/appropriated <p>COMMENTS: Expand the fee demonstration program to include all federal agencies. -Not all agencies adopted the program. -Find ways to keep fees for project -Initiate fee demonstration programs that have been successful.</p>		<ul style="list-style-type: none"> <input type="checkbox"/> Change legislative/administrative policy -change legislative authority and/or administrative policy to retain fee income at the project level

Barriers Category: Economics

4.17 Feds are downsized to the point they can't administer and enforce the plans and regulations. the lack of personnel to administer plans and regulations

Group A Solutions	Group B Solutions	Groups C Solutions
	<ul style="list-style-type: none"> <input type="checkbox"/> Build into contracts the management that is needed to apply regulations and plans. <input type="checkbox"/> Bring potential projects up through coordination of agencies for a 5-year plan and share the resources to do the work. Select project administrators to knock on doors and get the thing going and have that person stay on the project for the duration. <input type="checkbox"/> Regionalization by organization: delegate and eliminate. <p>COMMENTS: An excuse and BS.</p>	

Barriers Category: Economics

4.20 Lack of potential for return on investment (public interest and financial benefit).

Group A Solutions	Group B Solutions	Groups C Solutions

<ul style="list-style-type: none"><input type="checkbox"/> Value to investment<input type="checkbox"/> Compensation to ensure return on investments (no.)<input type="checkbox"/> Leases, length of leases<input type="checkbox"/> Develop a policy to ensure term of lease and possessing/compensable interest are commensurate with investment<input type="checkbox"/> Needed facilities should not be overlooked		
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Barriers Category: Mission Clarification

5.2 Compatibility of recreation uses with establishing authorities for an area for primary purposes. (-identify if water control -water fowl - jet ski)		
Group A Solutions	Group B Solutions	Groups C Solutions
	<ul style="list-style-type: none"> <input type="checkbox"/> Conduct a national analysis of projects to determine which lakes should have a recreation priority, and ultimately submit a bill to Congress. <input type="checkbox"/> Add recreation as an equal primary purpose (Title 28 provides 50% funding in waterways partnership). <input type="checkbox"/> Allow capital and O&M cost-sharing in the budget. <p>COMMENTS: Barriers 5.2, 5.7, and 5.8 are all the same. Make rec a primary purpose; Congress should make primary purpose; Clarify law 8972, propose a list of projects for Congress; Congressional mandate to make rec primary; Move project supervision from district level to a recreation division. Learn to live with it. Water supply issues are going to overcome recreation so learn to live with constraints of multiple use This would be OK if recreation is given a chance as it isn't many times. Just figure recreation into equation.</p>	

Barriers Category: Mission Clarification

5.4 Inability of governmental agencies becoming an educational source of what was approved. (endorsement of project) endorsement phobia		
Group A Solutions	Group B Solutions	Groups C Solutions
	<input type="checkbox"/> Private/public cost-share enterprise for participating and coordinating. <input type="checkbox"/> Contract with a professional marketing firm. <input type="checkbox"/> Tie into SFBPC advertising campaign. COMMENTS: Private/public enterprise. Currently fish/wildlife service is directed to spend 7.5 million a year to improve/promote outdoor recreation through SFBPC.(sport fishing boating partnership council).	<input type="checkbox"/> Review and change enabling legislative when appropriate --no one wants to --more consistent enforcement

Barriers Category: Mission Clarification

5.8 Primary project purpose vs. recreation (example: flood control).		
Group A Solutions	Group B Solutions	Groups C Solutions
		<input type="checkbox"/> Review and change enabling legislative when appropriate --no one wants to

Barriers Category: Political Concerns/Public

6.2 Conflict between profit for private sector vs. agencies role in low COST rec (User) opportunity. Clarification - Who will pay for the cost?		
Group A Solutions	Group B Solutions	Groups C Solutions
		<input type="checkbox"/> Identify who will do the best job for the public --recognizing public sector expertise (niche) --give private sector more opportunity to provide low cost recreation COMMENT: Private sector not given enough opportunity to provide low cost recreation

Barriers Category: Political Concerns/Public

6.3 Opposition from existing commercial development and local landowners and environmentalists.		
Group A Solutions	Group B Solutions	Groups C Solutions
		<input type="checkbox"/> Create a set of guidelines (protocol) for creative planning --strong planning --strong public input --develop strategic alliances

Barriers Category: Political Concerns/Public

6.6 Political agendas		
Group A Solutions	Group B Solutions	Groups C Solutions
		<input type="checkbox"/> Visibility --bring daylight to political agendas --strategic alliances --keep politicians informed (-) takes a lot of time (+) save a lot of time (long haul)

Barriers Category: Political Concerns/Public

6.7 Conflicting mission statements for different Federal agencies. Enabling legislation.		
Group A Solutions	Group B Solutions	Groups C Solutions
		<input type="checkbox"/> Review and change enabling legislation when appropriate (-) no one wants to

Barriers Category: Political Concerns/Public

6.8 Ability to balance stakeholder views.		
Group A Solutions	Group B Solutions	Groups C Solutions
		<input type="checkbox"/> Create a set of guidelines (protocol) for creative planning --strong planning --strong public input --develop strategic alliances

Proposed strategies for overcoming barriers

Category: Attitudes and Agency Culture

1. Define Recreation in terms that are measurable and are of benefit to the American people, both economically and socially.
2. Establish a National Recreation Lakes Study Pilot. It may be best to conduct a trial program with 8-10 lakes that do not have physical/legislative or other major constraints. Incorporate partnership planning and tie to reinventing government. The pilot must show success early with measurable results. Must address funding for development, O&M costs, advertising, infrastructure development, etc. To facilitate acceptance of a National Recreation Lakes System, recommend legislation be amended or implement regulations drafted to provide for pilot programs. Identify five or ten Federally-managed, man-made lakes to demonstrate concepts recommended by the Commission. Lakes selected would cover the full span of Federal agencies; i.e. COE, TVA, BOR, BLM, FS, and NPS. The success of the projects will speak out to other lakes. Education is a key to this project.
3. Develop and implement an outreach and communications plan that would address:
 - Obtaining Cabinet-level support. Ask Cabinet Secretaries to "charge" their respective agencies with making recreation partnerships part of the mission of the agencies. Need Cabinet-level support to adopt these issues.
 - Implementation of legislation proposed by the NRLS Commission is going to have to be addressed by several jurisdictional Committees in the Congress. The key to success is to provide congressional staff with the information they need to understand the Commission's intentions. It is important that they understand the merits of the issues so that they can respond to all inquiries and controversy.
 - Involve the communities surrounding proposed National Recreation Lakes in decision-making process at the beginning of any negotiation with potential partners to allay apprehension and help overcome resistance that may play politics with gaining acceptance.
 - Use press/marketing coverage to keep agencies "in the sunshine" and encourage leaders to support NRLS goals. Make the public aware of what is going on - not just through press conferences.
4. Measure the NRLS Commission's recommendations in terms of benefits to Americans and promote these as key elements of government agencies Government Performance and Results Act (GPRA) promotional activities. Market to partners, the retail industry, Congress, and agency leaders.
5. Training. Because it is perceived that one of the problems with fostering acceptance of a potential National Recreation Lakes System is a reluctance among certain Federal water resources management agencies to deviate from their original statutorily charged missions to make way for recreation, it seems that it would be helpful to have an educational workshop or forum like the "Barriers Workshop" to educate them for attitudinal change. Get them used to the idea that the National Recreation Lakes Study Commission may very well recommend statutory changes in the various Federal agencies authorizations to expand their mission to recreation.
6. National Conference. Hold a multi-agency conference to establish goals and processes that will be used to establish recreation partnerships.

7. Legislation. Recommend that the Commission propose legislation in which Congress finds that the mission of various Federal dam/hydro/flood control projects have fulfilled important national needs, but must now expand to include recreation and provide for the vital health and welfare needs of a growing population. Congress could direct them to participate. Establish a new or expanded mission that allows/authorizes each agency to treat recreation equally with resources and mission, and authorizing each to participate in cost-share agreements with one another, and with State and local governments, and with private and non-profit organizations.
8. National Recreation Lakes Study is the catalyst. Legislation would be the outcome of the overall process, but this takes time. Use NRLS as a tool to start this process.

Category: Regulatory/Legal Issues

1. Agencies need to begin to work on removing and/or reducing operational barriers (e.g. insurance, cost-sharing)
2. Adopt the philosophy that "recreation" is equal to all other functions/goals in the agencies.
3. Raise recreation to a higher priority through a variety of programs: demo programs, public involvement, partnerships.
4. Public Involvement. Set up meetings with regulatory agencies as it relates to a project and give a brief overview of project scope and involve everyone concerned on the front end.
5. Partnerships. Review regulations relating to project in the beginning. This might allow for a more productive roll-out at the first meeting with potential partners. Private investors need to get involved but the private investors need a longer lease/contract.
6. Using the NRLS as a catalyst, make specific recommendations for change. The NRLS could craft legislation, set up demo's, line-up success, and perform mitigation.
7. Recommend proposing legislation that defines common goals for the management and development of our Nation's Federally-managed lakes. Legislation would:
 - establish a common mission
 - establish recreation as an authorized purpose of all Federal lakes
 - allow cost-share for development of O&M
 - Provide skilled and knowledgeable staff for support of partnerships
 - Promote management and development of our Federal lakes
 - Establish agency accountability at agency level for program through GPRA
 - Establish demonstration program to 'test' legislative concepts
 - Establish and support educational and training programs
8. Set up demonstration programs to test concepts like the user fee demo before implementation.

Category: Mission

Legislatively amend the authorization for all Federal lake projects to include recreation as an equal purpose. Also provide all Federal land management agencies with the authority to enter into challenge cost-share agreements. The FS, NPS, BLM and COE have the authority to use challenge cost-sharing. The FWS, BOR and TVA do not. Also identify and secure a source of funding. If it's NOT in the mission it won't happen.

Category: Economics

1. Change policies to include cost-sharing for maintenance.
2. Build into agency performance (GPRA) requirements identifying economic viability of recreation improvement projects on lakes through partnerships.
3. Based upon evaluation above, recommend funding for approximately ten pilot partnerships that are representative of geographical agency diversity.
4. Record and disseminate (e.g. workshops/training for agencies and partners) the economic successes and failures of specific projects to improve future projects.
5. Recommend that the NRLS Commission propose legislation to establish a recreation foundation that would:
 - Support all agencies
 - Support education
 - Find sources of funding
 - Facilitate partnerships
 - Build constituencies
6. Conduct consolidated meetings using facilitators to educate people with common concerns and common solutions and cross reference these points. Site specific action plans for education of public private sector. Potential legislation
7. Get some legislation passed to clarify recreation purpose and provide return of funds to the area that generates these funds.

Category: Resources and Politics

There should be strong, active advocacy to the Congress and the President to enact legislation to:

1. Recognize:
 - a. the need to improve the access and availability of the Nation's lakes for recreation.
 - b. the need to change the priority of recreation relative to other lake purposes and uses.
 - c. the need to change agency attitudes, thinking, and action to include recreation as a priority.
 - d. the economic and social benefits provided by recreation.
 - e. the historical success of public/private partnerships in providing recreation projects and opportunities.
2. Identify and appropriate funding for:
 - a. planning, study and review
 - b. training and educating agency acceptance of partnering strategies.
 - c. implementing partnering strategies.
3. Create a bipartisan coordinating body that provides leadership and guidance to :
 - a. serve as a liaison between private industry, State and local government and Federal lake management agencies.
 - b. develop consistency among Federal lake management agencies in how they deal with partnership entities.

This would require a broad coalition of alliance undergirded by grass roots support of all stakeholders and the public users armed with strong persuasive reasons for these changes.

National Outdoor Recreation Foundation

One of the proposals of the Barriers Workshop (April 1998, Memphis, TN) was the creation of an Outdoor Recreation Foundation which could foster improved relationships between potential partners and the provision of public outdoor recreation opportunities, support all of the land management agencies, and assist in locating funding sources for the development of partners to provide public recreation opportunities.

Four national foundations are currently in existence. The National Park Foundation and the National Forest Foundation are agency specific. The National Fish and Wildlife Foundation and the National Environmental Education and Training Foundation are able to support activities in line with their charter on lands and waters managed by any Federal agency. A brief summary of each foundation follows:

The National Park Foundation, created by Congress in 1967, is the official nonprofit partner of the National Park Service. The Foundation is governed by a 22-member Board of Directors. The National Park Foundation Mission is to:

- (1) help conserve, preserve and enhance National Parks for the benefit of the American People;**
- (2) support programs primarily for education and outreach, visitor information and interpretive facilities, volunteer activities and National Park Service employees; and**
- (3) generate funds for grant making and assistance programs through gifts from private individuals, organizations and a range of fundraising and marketing activities.**

The National Forest Foundation was created by Congress in 1990. The nonprofit National Forest Foundation was established to encourage, accept and administer private gifts of money and property for the benefit of the U.S. Forest Service, and to conduct activities that further the purposes and programs of the National Forest System. The Foundation is governed by a 15-member Board of Directors, a majority of whom must have education or experience in natural or cultural resource management, law or research, and must represent diverse points of view relating to natural and cultural resource issues. Foundation activities are supplemental to and do not preempt any authority or responsibility of the U.S. Forest Service.

The National Fish and Wildlife Foundation was established by Congress in 1984, as a nonprofit charitable corporation to:

- (1) encourage, accept and administer private gifts of property for the activities and services of the U.S. Fish and Wildlife Service and the National Oceanic Atmospheric Administration;**
- (2) conduct activities that will further the conservation and management of U.S. fish, wildlife and plant resources; and**
- (3) participate with and assist foreign governments, entities and individuals in conducting activities to further fish, wildlife and plant conservation and management in other countries.**

The Foundation is governed by a 15-member Board of Directors representing diverse points of view on fish and wildlife conservation and management. The Foundation must report annually to Congress on its receipts and expenditures, and on acquisition and disposal of real property.

The National Environmental Education and Training Foundation was created by Congress in 1990, to:

- (1) extend the contribution of environmental education and training to meet critical environmental protection needs both nationally and internationally;**
- (2) facilitate the coordination and contribution of public and private resources to create an environmentally advanced educational system; and**

- (3) foster an open and effective partnership among the different resources.

The Foundation is set up as an independent charitable and nonprofit organization, governed by a 13-member Board of Directors appointed by the Administrator of the Environmental Protection Agency. Donations are tax deductible and the foundation is expected to encourage, accept, leverage and administer private gifts for the benefit of, or in connection with, EPA's environmental education and training activities and services. The Foundation develops, supports and/or operates programs and projects to educate and train educational and environmental professionals, and to assist them in the development and delivery of environmental education and training programs and studies.

Conclusion

The establishment and operation of a national foundation is not a simple process. Based on the experience of the four existing foundations, it takes about five to ten years for a foundation to become fully effective. The success of a foundation is built on relationships. Key to the establishment of any foundation, and most certainly to one that would conceivably support all of the Federal land management agencies, is the clear establishment of purposes. Then the foundation could be empowered to move forward and support those purposes.

Funds available from foundations are usually an extension of Federal funding. Funds going through foundations usually have a two to one match, private to Federal. The National Endowment of the Arts uses this strategy quite successfully. For every two dollars donated, the NEA will put one dollar toward the same effort.

However, relationships with foundations are more than just monetary. In fact, relationships are more important than the funds that may become available through the foundation. The foundation can build constituencies, talk to Members of Congress and open the doorway into corporate America.

Strong non-Federal support would be essential to the creation of a national outdoor recreation foundation.

Task 12 Designation Considerations for a National Recreation Lakes System

Public Law 104-333 directs the National Recreation Lakes Study Commission to prepare a report that includes “recommendations on alternatives for enhanced recreation opportunities including, but not limited to, the establishment of a National Recreation Lakes System under which specific lakes would receive national designation and which would be managed through innovative partnership-based agreements between Federal agencies, State and local units of government, and the private sector.”

The law requires that “to the maximum extent possible, the Commission shall use existing data and research.” Therefore, the Commission Staff reviewed the requirements for existing national designations for the purpose of identifying possible characteristics or processes which might be helpful should a determination be made to proceed with designation of a National Recreation Lakes System (NRLS).

The attached Table 1 is a summary of existing national designations. While not an exhaustive list, the table identifies groups, each with a special designation. Other geographic areas with unique values and high local interest may have special designations administratively established by the responsible managing Federal agency.

The establishment of a “National” system or area for recognition and Federal support is usually driven by some unique natural feature(s), but the process leading to the designation has several common elements. There is some legislative action or Executive Order which creates an instant designation and provisions for additional units to be added where specifically required criteria are met. The final review and approval of additional units is usually accomplished at the Secretarial level, unless Congress or the President retain final designation authority, as is the case for all wilderness designations.

Increased public pressures brought to a specific area are sometimes more than anticipated or willingly accepted by the local population. Therefore, a broadly accepted National designation will have high State involvement and support through the State legislative body and the Congressional delegation at the National level. Since any broad notoriety and assumed increase in public interest will have an affect on local social and economic conditions, any successful designation will also have full involvement and support from the local population and as well as stakeholder organizations.

Brief Discussion of Existing Designated Areas

National Conservation, Recreation, and Scenic Areas are very site-specific and designations have been established on an individual area basis. Each of the areas have specific qualities, as their names imply, for unique landscape attributes, outstanding recreational values and high scenic attractions respectively, which warrant the special designation.

Wilderness Areas are established through the 1964 Wilderness Act which created a number of instant wilderness areas throughout the United States on Federal lands managed by various different Federal agencies. Provisions within the Act allow additional wilderness designations where the land area exhibits the specific elements relating to a landscape essentially unmarked by the actions or activities of man, size requirements, roadless, solitude, etc. Congress retains the sole authority to designate wilderness areas on Federal lands. Specific funding in support of individual areas comes through the annual appropriations process for each agency.

Wild and Scenic Rivers were established by Congress in 1968. Eight rivers were specifically identified by name to be the first components of a National Wild and Scenic Rivers System. As part of the legislation, Congress authorized specific dollar amounts to be used for land acquisition for each of the river segments. The legislation also identified a list of rivers to be

studied for possible inclusion into the system, but without specific dollar authorizations for the named rivers. Additional river segments may be added to the Wild and Scenic River designation if they meet the criteria within the law. These essential criteria are identification as “free flowing” and containing at least one “outstandingly remarkable value,” i.e., scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar value. Congress designates the rivers, but the legislation also authorizes the Secretary of the Interior to make designations after affected States have identified the river segment for long-term State protection.

The **National Scenic Byways** program is a recently designated system established through legislation. The designation and subsequent program was established by the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). For a route to be eligible for inclusion in the National Scenic Byways program, it must possess one or more of six “intrinsic qualities,” which are: scenic, natural, historic, cultural, archeological, and recreational. Additional criteria necessary for full consideration are broad-based local community support, continued management as laid out in detail in a corridor management plan, and to receive the National designation, the route must first get a State designation. Each State has their own Scenic Byways coordinator for guidance and assistance through the process.

The Byways program is unique in that it has multiple levels of participation. There are private, local, State, and Federal programs, all of which are eligible to apply for Federal funding support through a Federal Highway Administration (FHWA) grant process which was a part of the ISTEA legislation. Routes on federally administered land must first be recognized within the managing agency’s Scenic Byways program, using the same designation criteria, and following the same process through a State coordinator.

All participation in the National Scenic Byways program is on a voluntary basis with emphasis toward local individuals, communities, stakeholders and State collaboration. Coordination and final review, at the Federal level is the responsibility of the FHWA. The final determination and designation of a National Scenic Byway is made by the Secretary of Transportation after consultation with the Secretary of Agriculture, Commerce and the Interior, as appropriate.

The **American Heritage Rivers** system was established by Executive Order 13061, dated September 11, 1997. It is voluntary, locally driven and communities choose to participate and can terminate their participation at any time. When proposing an American Heritage River, the communities must address 3 elements; 1) economic revitalization; 2) protecting natural resources and the environment; and 3) preserve historic and cultural heritage. The initiative uses existing federal resources to assist communities wishing to designate rivers as American Heritage Rivers.

The communities surrounding designated rivers receive a number of benefits, including special recognition, focused federal support, a federal liaison person (the River Navigator), improved delivery of federal assistance and a good neighbor policy. A new committee, the American Heritage Rivers Interagency Committee, is responsible for implementation. A panel of experts in river revitalization reviews the nominations and makes recommendations to the President for final designation.

Conclusions:

Creating a “National System” provides substantial recognition of natural features and recreational opportunities on Federal lands. The process leading to a national designation has several common elements. There is, in nearly every case, some legislative or executive action that creates an instant designation and provision for additional units when specifically required criteria are met. Congress may retain authority to designate additions as in the case of all wilderness designations.

The designation process and establishment of designation criteria for the National Scenic Byways System is the most recent legislated system and the process appears applicable for any Federal man-made lakes system considered by this study. Many of the following 'key elements' for proposals to the Byways System could also be considered for establishing a NRLS designation.

Key Elements

- local origination of proposals
- high local, community, stakeholder involvement from the outset
- State involvement throughout the process with each State having a coordinator
- long-term commitment (i.e. zoning, regulations, restrictive covenants, etc.) to 'preserve and enhance' the intrinsic qualities which originally qualify the unit for designation
- provision for de-designation of a unit when it fails to maintain prescribed standards of quality
- clarity of procedure, from local to State to Federal coordinating agency without duplication
- a specific Management Plan identifying actions, procedures, controls, partnerships, operational practices and strategies necessary to 'maintain and enhance' qualities
- access to Federal funding for specified purposes (i.e. planning, design, improvements, safety)

Recommendations:

If a National Recreation Lakes System is to be designated, the foregoing summary can be used as guidance. All of these designations are considered successful in providing the intended natural resource protection and the opportunities for which the designation was established.

A standard of high quality must be an integral part of any lake or reservoir considered for a national designation. The following guiding principles and qualities will provide the framework for any proposed National Recreation Lakes System.

Guiding Principles

1. Development and maintenance of facilities will be sensitive to and compatible with the existing environment
2. Water quality will be maintained to highest standard for all authorized uses
3. Full consideration and accommodation for all existing authorized uses
4. Safety of all operations and activities on and around the designated lake
5. Authorized concessions operations will be consistent throughout the designated system regardless of the managing agency
6. Recreational opportunities will be provided for active and passive water-related activities, but not necessarily at the same lake or even at all lakes
7. Projected increased recreational activities will not diminish the quality of the experience or other recreational uses of the designated lake
8. Designated lakes will be easily accessible to the general public with facility accommodation considerations for the physically challenged
9. Opportunities for creative public/private and public/public partnerships in the development and operation of any or all recreation facilities

A Process for Designation

Prior national designations have been accomplished through two different and both very successful methods. The President has recognized special and significant areas through Executive Order, establishing a 'National Area' or 'System.' Recent examples of this process would be the establishment of the Grand Staircase-Escalante National Monument and the National Heritage Rivers System. The second, and most frequently used method of designation, is through Congressional action, with additional designations delegated to an appropriate Secretary.

Regardless of which method is used, the designations will likely receive a broader acceptance if the individual lakes recommended for designation are nominated from the local to the national level. The process could be developed as follows:

1. Local interests (i.e., community groups, private business, local government) in cooperation with the managing agency, identify those characteristics and lake recreational opportunities of unique significance and deserving additional recognition.
2. Local Federal managers would work with communities to ensure the guiding principles are followed in developing a comprehensive and sufficiently detailed package containing standards allowing equal evaluation with proposals for other lakes from other agencies. A National Recreation Lakes System could contain lakes from several agencies.
3. Each agency would centralize the initial review of proposals from an agency-wide perspective.
4. A multi-disciplinary advisory review panel, appointed by the participating agencies, would consider all final nominations and select the appropriate number to be included in the first designation of a National Recreation Lakes System across agency boundaries.
5. All lakes receiving the NRLS designation would be managed by the agency that currently has management authority, but all would have consistent policies and procedures throughout the NRLS.
6. The first few lakes to receive the designation will become pilot or model lakes from which the lake managers can try new ideas and procedures, share success and failures, and develop a policy structure that can be applied to all recreation lakes regardless of agency jurisdiction.
7. Subsequent nominations to the NRLS would again be selected by the multi-disciplinary advisory review panel and final approval provided by the Secretary of the Interior after appropriate consultation with other affected Secretaries.

Table 1

NATIONAL DESIGNATION AREAS

Designation	Authority	Approval	Criteria	Citation	Significance
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National Conservation Area (NCA)	Legislation	Congress	unique public land area	Various --- specific for each area	National
National Recreation Area (NRA)	Legislation	Congress	outstanding recreation values	Various --- specific for each area	National
National Scenic Area (NSA)	Secretarial Order	Congress or Secretary of the Interior	high scenic values	Various --- specific for each area	National
Wilderness	Legislation	Congress	roadless, size solitude, outstanding wilderness values	PL 88-577 43 CFR 8500 43 CFR 8560	National
National Scenic Byways	Legislation	Secretary of Transportation	high natural resource & scenic values	PL 102-240 (ISTEA)	National & Regional
Wild and Scenic River (WSR)	Legislation	Congress or Secretary of the Interior	free-flowing & one (min.) outstanding remarkable value	PL 90-542 36 CFR 297; 43 CFR 6400	National
National Historic Trail (NHT)	Legislation	Congress	unique historical resources	PL 90-543	National
National Scenic Trail (NST)	Legislation	Congress	significant scenic values	PL 90-543	National
National Recreation Trail (NRT)	Legislation	Secretary of the Interior	high recreational values	PL 90-543	National & Regional
American Heritage Rivers	Presidential Executive Order	President	revitalize, environment, heritage,	E.O. 13061	National & Regional

Task 13 **Overview of Recent Legislation and Policy Recommendations Concerning Private Sector Management of Commercial Recreation Activities**

Introduction

Most Federal agencies and their non-Federal partners who manage recreation opportunities on Federal lands and waters are having difficulty providing high quality recreation facilities and maintaining those that already exist.

Although the role of providing adequate facilities and services to the 1.5 billion visitors annually to Federal lakes is part of their overall mission, management agencies have limited funding and staff resources, which has remained flat or declined over recent years. These facilities must not only meet the needs and demands of the public, but must be safe, accessible, and environmentally compatible. The agencies need creative solutions to develop the needed water-related recreation facilities and services, projected to increase at a rate of 2 percent per year and provide enough skilled personnel to manage and maintain them.

For these reasons, managing agencies have turned to the private sector for their expertise in financing, designing, constructing, operating and maintaining needed and desired recreation facilities and services. These initiatives have provided facilities such as overnight lodging, campgrounds, restaurants, marinas and boat ramps, equestrian facilities, golf courses, resorts, nature centers and visitor centers.

While these facilities and services have been beneficial to the visiting public, they haven't come without problems. Congressional and administrative oversight of commercially-provided recreation activities have surfaced several concerns. The most prominent are: 1) maintaining control; 2) assuring a fair return for the opportunity to profit from the use of Federal lands; 3) being able to accommodate the interest to compete for the opportunities; and 4) accounting for fee collection and accurate crediting and distribution of the funds.

On the other hand, those companies that provide the facilities and services have complained that existing agency policies make it very difficult for them to operate efficiently and to make a reasonable profit. The most common complaint is that the lengths of the concession contracts are not long enough to amortize investments making it very hard to secure financing. They say in order to provide the desired quality of service, they must be able to run an economically viable operation. Most water-related recreation activities are seasonal. When you add the possibility of fluctuating water levels due to reservoir drawdowns or retentions, it becomes even more difficult for an operator to secure and pay loans and meet expenses.

The debate over commercial recreation policies has been going on for decades. The GAO has conducted 30 reviews in the past 20 years. Departments have established interagency task forces to review their policies and recommend changes. The level and comparability of agency guidance vary widely. Some agencies have policy established by legislation (National Park Service), while others received direction only through vague references in organic acts. In addition, the Congress has introduced numerous bills to reform concession policies over the past 20 years, but only this year enacted a new law (P.L. 105-391), that only applies to the Park Service.

This paper is an overview of recent Federal efforts and suggests a reasonable approach to pursue.

Recent Efforts to Reform Concession Policy

The National Park Service Concessions Management Improvement Act of 1998

The National Park Service Concessions Management Improvement Act of 1998, (the Act) is the first concession legislation enacted since the Concessions Policy Act of 1965. It only applies to the NPS, but deals with many of the issues relevant to the deliberations of the National Recreation Lakes Study Commission.

1. Award of Concession Contracts. The Act requires concession contracts to be awarded through a competitive process by issuing a bid prospectus. The prospectus will include the minimum franchise fee expected and other forms of consideration to be offered. It will indicate the kinds of facilities, services or capital investment required of the bidder and the measures that will be necessary to ensure protection, conservation and preservation of park resources. If there is no acceptable bid under these conditions, then NPS can reestablish minimums and reinitiate the selection process. Except for outfitter and guide services and concession contracts grossing less than \$500,000, concessionaires cannot be granted preferential right of renewal. The Act allows the NPS to extend an existing contract or award a temporary contract for three years and under extraordinary conditions can award a contract without competition.

2. Terms of Concession Contracts. The Act authorizes 10-year terms, but permits extensions up to 20 years.

3. Protection of Concessionaire Investment. The Act establishes a leasehold surrender interest equal to the initial construction cost plus an increase or decrease equal to the Consumer Price Index (CPI) to the date of payment less depreciation. After nine years, for contracts estimated to have a surrender value exceeding \$10 million, the NPS may go to 1) a depreciated blue book value or, 2) an alternative formula. Existing possessory interest is grand fathered. Possessory interest that carries over is established as the new leasehold surrender interest. New concessionaires “buying out” an existing concessionaire leasehold interest will have their initial interest set at that buy out level. Title to any improvements will be vested in the United States.

4. Reasonableness of Rates. The Act authorizes the concessionaires to set reasonable rates subject to approval of the Secretary, and limits them so as not to exceed market rates.

5. Franchise Fees. The Act states the fees should reflect the opportunity for net profit. The fees should be subordinate to other award factors, and can be renegotiated, using binding arbitration, if the contract is longer than five years. The fees collected will go into a special account with 20% being available anywhere in the park system without further appropriation and 80% being available in the park where collected without further appropriation.

6. Transfer of Concession Contracts. The Act requires that contracts cannot be transferred without written approval of the Secretary.

7. National Park Service Concessions Management Advisory Board. The Act establishes a 7-member board to advise on policies and procedures. Members will serve four year staggering terms. No member can have an interest in an NPS concession and the Board expires in the year 2008.

8. Contracting for Services. NPS is encouraged “to the maximum extent possible” to contract out services related to concessions contracts.

9. Multiple Contracts within a Park. The NPS may set the same fees for similar services within a specific park. If a new contract is signed, the other existing concessionaires are not required to meet same fees.

10. Special Rule for Transportation Service Contracts. Transportation contracts cannot exceed 10 years.

11. Nonmonetary Consideration. Section 321 of the Act of June 30, 1932 (40 U.S.C. 303b) shall not apply.

12. Record Keeping. Concessionaires must keep records as determined and show them when asked. The Comptroller General has the right to see records for five years after a business year.

13. Commercial Use Authorizations. The Act authorizes commercial uses which are not considered concession contracts. Such uses include: commercial operations originating and operating within the park and not having annual gross receipts exceeding \$25,000; commercial operations originating and ending outside a park (no limit on receipts); uses by organized camps, clubs and nonprofits (nonprofits not charged unless receive taxable income). No construction of facilities within the park will be allowed. The authorizations will have a 2-year term with no preferential right of renewal. Holders of such authorizations could also bid on concession contracts. The NPS can charge a reasonable fee (minimum to recover costs) and use the revenues without further appropriation.

General Accounting Office (GAO) Review

In a review released March 12, 1998, the GAO summarized the last 30 reports it has conducted on concessions over the past 20 years.

The major findings and conclusions of the 1998 report are:

- “1. Concessionaires play a vital role in enhancing the public’s enjoyment of the national parks and other recreation areas. At the same time, the Park Service has an obligation to ensure not only that these concessionaires provide healthy and safe services to the public, but also that the government receives a fair return for the use of its land so that the nation’s natural and cultural resources can be adequately preserved and enjoyed by future generations.
2. Concession activity on Federal lands is a large industry that generates billions of dollars. GAOs recent work showed that over 11,000 concession agreements were managed by civilian agencies throughout the Federal Government. Concessionaires operating under these agreements generated about \$2.2 billion in gross revenues. Over 90 percent of concession agreements and the concession gross revenues were from concessionaires in the six land management agencies - with many of the largest concessionaires operating in the Park Service. For agreements that were either initiated or extended during fiscal year 1994, concessionaires in all of the land management agencies paid the government an average of about 3 percent of their gross revenues. In the case of the Park Service, average return was about 3.5 percent. In contrast, concessionaires in nonland management agencies paid fees of about 9 percent of their gross revenues.
3. The key factors affecting the rate of return to the government were (1) whether the fee was established through competition, (2) whether the agency was permitted to retain most of the concessions fees it generated and (3) whether an incumbent concessionaire had a preferential right in renewing its concession agreement with the government. Throughout the Federal Government, rates of return from concessionaires were higher when established through competition. In addition, agencies which had authority to retain fees and which did not grant preferential rights of renewal generally obtained higher rates of return to the government from concessionaires.
4. In previous reports, we noted that as the Congress considers reforming concessions in the Park Service, it may want to consider (1) encouraging greater competition by eliminating preferential rights of renewal and (2) providing opportunities for the Park Service to retain at least a portion of concession fees. In addition, some concession reform proposals have suggested removing possessory interest - the concessionaire right to be compensated for facilities constructed or acquired on Federal lands. At issue are the long-term costs of

acquiring concessionaire-owned facilities relative to the benefits realized by having greater control through government ownership of facilities.”

The Corps of Engineers Recreation Partnership Initiative

The Recreation Partnership Initiative (RPI) is a new marketing initiative designed to provide additional public recreation opportunities and infrastructure at U.S. Army Corps of Engineers water projects at no additional cost to the Federal Government through private sector involvement where demand exists. This initiative is unique in that the private sector is helping the Corps attract private sector development of public recreation facilities on Federal land. The purpose of the program is to encourage private development of public recreation facilities such as marinas, hotel/motel/restaurant complexes, conference centers, RV camping areas, golf courses, theme parks, and entertainment areas with shops, rather than development of private exclusive use facilities, such as condominiums, time shares, or private residences.

The initial selection of five specific sites is market driven and based on extensive market research. State economic development agencies have indicated a willingness to consider providing tax and low interest loan incentives and infrastructure construction assistance to potential developers of public recreation facilities at these sites. Work is expected to proceed so that 30 year leases for specific sites can be executed by successful developers in January 2000. Considerable “findings” are expected from this effort and will have significant effects on future concessions policy.

The Secretary of the Interior’s Task Force

In 1991 the Secretary of the Interior, established an Interagency Concessions Management Task Force to review Federal agencies’ concessions management practices and develop recommendations for improving concession operations throughout the Department of the Interior. The Task Force was composed of representatives of the Fish and Wildlife Service, Bureau of Reclamation, Bureau of Land Management, National Park Service, U.S. Army Corps of Engineers and the Forest Service.

Among the major recommendations of the task force were:

- A. Agencies must take a more involved approach to managing recreation activities.
- B. Agencies must develop a more professional staff.
- C. Agencies should adopt the following guiding principles:
 1. Protect natural, historic and cultural resources.
 2. Provide opportunities for appropriate, high quality visitor services at reasonable cost.
 3. Provide concessionaires with a reasonable opportunity for profit.
 4. Provide equitable returns to the Federal Government and the taxpayer.
 5. Enhance competition in awarding concession authorizations.
 6. Improve consistency among agencies’ commercial recreation programs.
 7. Integrate concessions management into agencies’ resource management planning processes.

Additional findings and recommendations included:

1. Agencies differ widely in the best manner in providing commercial recreation services.
2. Agencies have different definitions for concessions.
3. Collection of information could improve by adopting a government-wide data-reporting procedure.
4. Establish an Interagency Concessions Management Coordination Council.
5. Achieve more consistency in what terms are used and what charges are made.
6. Adopt a sound system for assuring equitable returns to the government.
7. Where land is turned over to non-Federal managers, the policies should be consistent with Federal policy.
8. Limit contracts to 15 years - exception would require financial justification.
9. Widely publicize opportunities and Requests for Proposals and actively generate ideas.

10. Avoid granting preferential rights of renewal.
11. Eliminate possessory interest and establish compensation at initial investment minus depreciation (i.e., blue book value).
12. Establish and implement a program review and evaluation system.
13. Establish and maintain employees skilled in concession management.
14. Seek to establish trans-boundary agreements.

As a result of this task force effort, all the participating agencies signed a Memorandum of Agreement (MOA) in 1995 that adopted the guiding principles described in the task force report. Any policies the agencies developed were to follow those principles. There were attempts made to have a broad review of the report recommendations, with the intent to develop and adopt, to the extent permitted by law, a new concession policy that would apply to all agencies. At the same time there were several concessions bills introduced in the House and Senate, some applying to all agencies, others only to the Park Service, that had to be reviewed and commented on.

Success in implementing the intent of the MOA was mixed. The Bureau of Reclamation eventually adopted a policy (April 1998) that very closely follows the 1992 task force report recommendations. The length of time it took and the fact that the other agencies have yet to adopt new concession policies that follow the task force recommendations is a reflection of how difficult a process this has been.

The real benefit of the task force effort was to bring those agencies together that have responsibilities and opportunities to provide commercial recreation activities on Federal lands and waters, discuss common issues and seek to recommend sound solutions. The task force was successful in that effort, but the diversity of agency missions, the process by which the agencies develop policy and the myriad of Congressional oversight committees has made it very difficult to achieve what was intended in the MOA.

The following Table 1 shows the current policies of the 7 Federal management agencies. The continued diversity in policy is still prevalent.

Table 1. Comparison of Concession Management Policies and Procedures

	COE	BOR	TVA	FS	BLM	FWS	NPS (S. 1693)
How contract is awarded	competitively	competitively	competitively	competitively initially then can renew	competitively	competitively	competitively
Length of contract	up to 25 years	5-15 yrs. - could be longer	19-30 years	10-40 years	10-45 years	case by case basis. Typic. 5 years	10 yrs. w/20 on approval
Fees	Revised Graduated Rental System	comb. of direct and indirect -10 yr. review	3-5% of gross or appraised value	Revised Graduated Rental System/bid	3-8% of gross receipts	varies	As determined by NPS
Possessory Interest or Compensatory	negotiated on a lease by lease basis	Compensation on depreciated blue book value	no	yes	no	no	leasehold interest = cap. invest. + CPI - deprec.
Right to renew	not auto. Competition can be waived	no	option available	yes	not auto. Based on performance	yes	no
Where fees deposited and how used	25% in Treas. 75% to States	Treas. - In the Reclamation Fund	Retained by TVA for O&M	Treas. - for appropriation	Treas. - for appropriation	Refuge Revenue sharing fund. Back to Counties	fees kept and used w/o approp.
Title to improvements	Concessionaire	U.S.	Concessionaire	Concessionaire	U.S. at end of term	U.S.	U.S.
Other							Establishes advisory board

Forest Service Related Legislation

1. The National Forest Ski Area Permit Act of 1986 P.L. 99-522

Through management partnerships, the Forest Service and the private sector supply 60% of all downhill skiing in America. This law provides for ski area permits to be issued for 40 years, and fees to be based on fair market value.

2. The Omnibus Parks and Public Lands Management Act of 1996 (Sec. 701)

This Act replaced the Graduated Rate Fee System with a simpler formula for computing permit fees. The new system is based on a percent of gross revenue, ranging from 1 1/2 percent of revenues less than \$3 million, to 4 percent of revenues exceeding \$50 million.

The Forest Service permits provide for renewal at the discretion of the contracting officer, and allow for cost-sharing of environmental and visitor studies.

3. Public/Private Ventures

Based in part under Grainger/Thye authorities, the Public/Private Ventures initiative has been successful in attracting the private sector to play a greater role in the development and management of recreation facilities in the national forests. This program allows for permit terms extending up to 30 years with renewal at the discretion of the contracting officer.

4. Federal Activities Inventory Act of 1998

This Act applies to all Federal agencies and requires them to report those activities which are essentially non-governmental in nature. It encourages these activities to be contracted out to the private sector. Regulations have not yet been developed but may provide for greater opportunities for the private sector to develop and/or manage recreation facilities and services on Federal lands and waters. The Forest Service indicates about 70 percent of all overnight stays in the national forests are provided by commercial operators. This legislation suggests the Congress is unlikely to appropriate funds for the development of marinas and resorts which are inherently governmental in nature.

Conclusions

There are several conclusions that can be drawn from the above information. It is important to be able to adequately provide the 1.5 billion visitors to Federal lakes with quality recreation facilities and services. These facilities must not only meet the needs and demands of the public, but must be safe, accessible, and environmentally compatible. Meeting the increasing demand for such facilities and services has been difficult to accomplish within the Federal budget constraints. The Federal managing agencies cannot keep up with the current maintenance backlog estimated at \$800 million, let alone being able to construct and manage new facilities. The Federal agencies agree that providing opportunities for the private sector to design, build and operate the needed facilities is an extremely valuable management tool. The private sector has the funds and skills necessary to allow the public to fully enjoy the types of recreation activities so much in demand at Federal lakes. The taxpayers benefit by relieving them of funding the construction and operation costs, and through collection of franchise fees, the Federal Government might derive income to help offset costs of operating other recreation facilities at Federal lakes.

There are, however, challenges for both the Federal managers and the commercial recreation providers.

The Federal manager must ensure:

- commercial recreation opportunities are provided when planned for and developed through a resource management planning process;
- skilled personnel are retained to manage a concessions program;
- concessionaires have a reasonable opportunity to make a profit;
- there is a fair return to the Federal government for the use of Federal lands;
- environmental values are not jeopardized;
- competitive opportunities are provided for awarding contracts; and
- recreation needs are considered in operating lake levels whenever possible.

The concessionaire needs to:

- be responsive to the changing needs of the recreating public and the variety of services desired;
- operate the facilities in a safe, healthful and environmentally sound manner;
- employ qualified personnel; and
- operate in a manner that supports the agency's mission, and ensure that it reflects the natural, cultural and historic resource values of the area.

Almost all of the recommendations mentioned in the above reports and legislation have considerable merit. The decision becomes a matter of what is adopted and by what means.

Recommendations

The Commissioners should direct the Study staff to peruse the referenced report recommendations and the recent NPS legislation and propose a concessions management policy and guidelines that could be applied at all Federal lakes. If implementation requires legislation for the other Federal lake management agencies, a draft proposal should be presented to the Commission.

Task 14 **Protection of Watershed and Ecosystem Values**

I. Lakes and watersheds - The inseparable relationship

There are 1,782 Federal man-made lakes in the United States. In almost all cases, construction of these lakes causes disruption to natural river flow regimes, causes losses of riverine habitat for fish and wildlife, impacts water quality through changes in sediment load, dissolved oxygen, water temperatures, and nutrient concentration levels. The interrelationship of lakes to activities within their watersheds affects man-made lakes to a much larger degree than natural lakes. This is because, in general, man-made lakes have a much greater watershed area to lake surface area ratio. Consequently, man-made lakes are impacted by a much larger watershed area than natural lakes resulting in higher sediment and nutrient loads than their natural lake counterparts. Consequently, the aging process (eutrophication) of a man-made lake can be accelerated because of more rapid sedimentation, nutrient and toxic chemical buildup. In the worst case, a man-made lake's total volume can be lost to siltation, e.g., Lake Ballenger in Texas, Mono Reservoir in California, and Nolichucky Lake in Tennessee (Owen 1980).

Man-made lakes intercept and are often the final repository of pollutants and other materials generated from throughout the watershed that drains into them. Within lakes, there are very delicate interrelationships between their physical, chemical, and biological properties. For example, rain-washed chemical fertilizer from a farm far upstream of the lake can alter the chemical properties of the lake water. The altered water chemistry then results in greatly increased growth of algae and zooplankton which can then, in time, affect fish populations and water-related recreation opportunities. Thus a lake's ecosystem is not just the lake's water and adjacent shoreline, but includes the land, plants, animals, and all waters draining into the lake.

Lake aging is a natural process, and even though man-made lakes may receive higher pollutant loads than natural lakes because of their proportionately greater watershed area, eutrophication can become much more accelerated as a result of human activity within a lake's watershed.

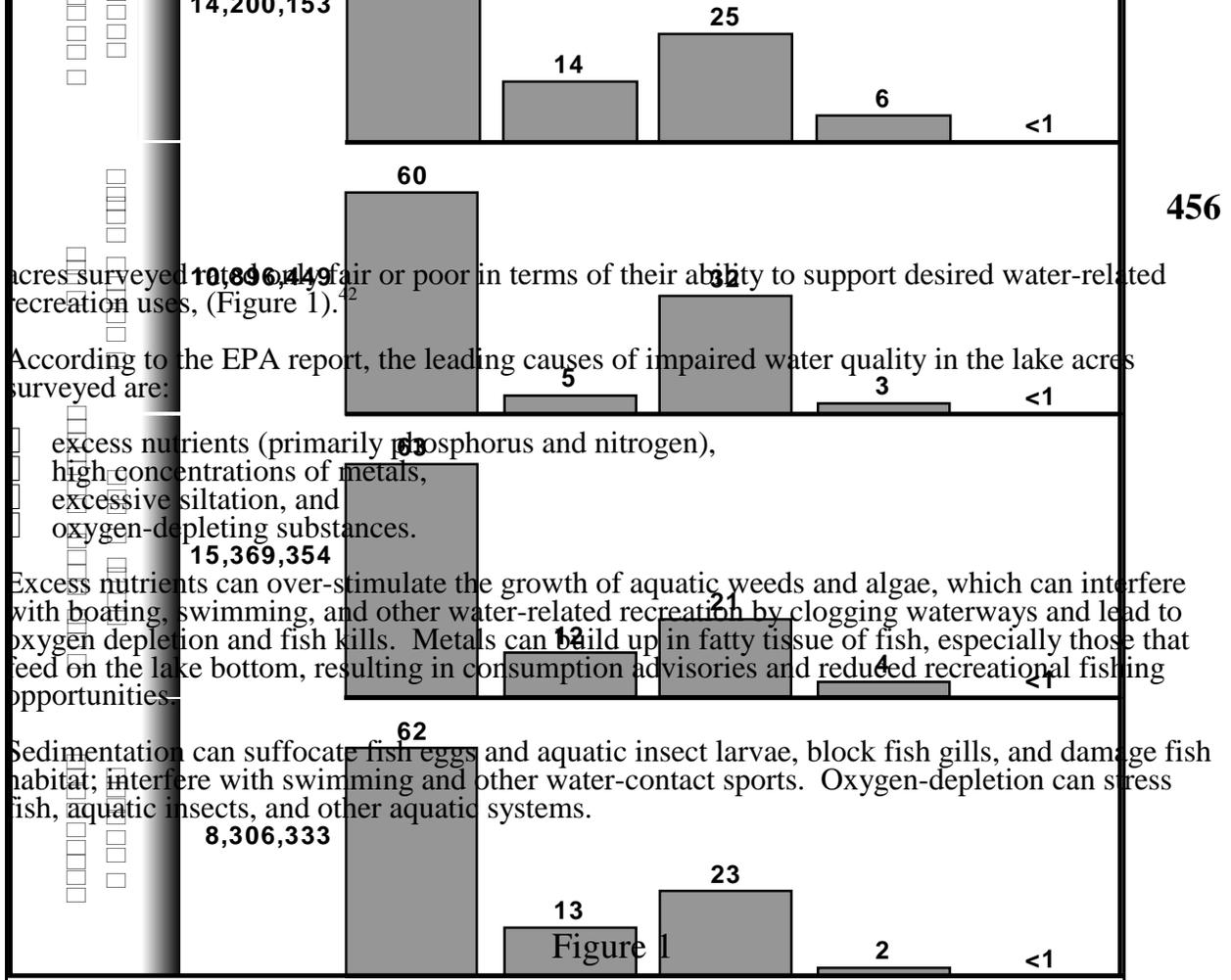
Excess nutrients, sediments, or toxins can all result in an imbalance in the numbers and kinds of aquatic plants and animals that inhabit a lake. Decreased fish abundance, decreased water clarity, low-oxygen levels, and increased growth of algae can all decrease a lake's desirability and suitability for many water-related activities including recreation uses such as boating, water skiing, swimming, and fishing.

Clearly then, lakes are vulnerable and respond to all things lying or occurring within their watershed.

A. Fishable and swimable waters for all Americans.

The original goal of the Clean Water Act of 1977 was fishable and swimable waters for all Americans. Over the past 25 years, outstanding progress has been made in reducing water pollution and restoring our lakes and rivers, but about half of the nation's 2,000 major watersheds still have serious or moderate water quality problems.

In EPA's 1996 National Water Quality Inventory Report to Congress, participating states and tribes reported that 10.4 million acres (61 percent) of the 16.8 million acres of lakes, reservoirs, and ponds surveyed have good water quality. Some form of pollution or habitat degradation impairs the remaining 6.4 million acres (39 percent). Between a fourth and a third of the lake



EPA, 1998, National Water Quality Inventory

* Surveyed waters include both man-made and natural lakes, reservoirs, and ponds.

The majority of this pollution results from polluted runoff within the watershed. Nationally, agriculture is the most extensive source of pollution affecting the 6.5 million lake acres determined to have impaired water quality. About half (49 percent) of the water quality problems are attributed to agriculture and about a fourth (24 percent) to unspecified nonpoint source pollution. Here again, the direct relationship of activities within the watershed to lake health and water quality is evident.

After 25 years of progress in cleaning up our streams, rivers, and lakes, it is apparent that continued implementation of existing programs will not stop serious new threats to the nation's waterways and lakes, especially from polluted runoff.

B. Charting a new course - considerations for actions.

In February 1998, the Environmental Protection Agency and the Department of Agriculture, assisted by other Federal agencies, unveiled a major, new Clean Water Action Plan. A key element in the Action Plan is a unified Federal Policy for ensuring a watershed-based approach to management, in which Federal, State, tribal, and local government, and the public work together to focus resources and implement solutions.

⁴²The summary information presented in the 1996 EPA report cannot be used to make generalizations about all of the nation's lakes. The data is extracted from state 305(b) reports and most states design their water monitoring to detect degraded waterbodies. Very few states randomly sample their lakes to represent a cross section of lake water quality conditions. Therefore, the surveyed lakes data probably contain a higher percentage of polluted waters than all the nation's lakes as a whole. And the percentages presented in the table probably overstate the actual extent of impaired lakes across the nation. Also, the difference in state survey methods, negates the use of the data for making direct comparisons among states. Discrepancies in survey methods often account for the wide-range in reported ratings.

Consistent with the Clean Water Action Plan and the experience of water resource managers across the country, the Commission should consider adopting these actions to protect and enhance the ecosystem values vital to our continued use and enjoyment of Federal recreation lakes.

1. Management of Federal lakes should be watershed-based.

As acknowledged in the Clean Water Action Plan, a watershed approach is the key to setting priorities and taking action to restore and protect our nation's lakes. This is because a lake is vulnerable to everything lying within its watershed. The water quality problems affecting lake recreation, identified above, are caused primarily by nonpoint sources of pollution resulting from watershed development and improper land-use practices along both tributary streams and shoreline margins. Hence, a watershed approach is critical to protecting the environmental quality and recreation use of these lakes.

In addition, as noted in the Clean Water Action Plan, a watershed focus can help:

- Focus efforts on the most critical problems impacting lake ecosystems.
- Draw attention to the cumulative impact of various human activities.
- Identify innovative, efficient means of improving lake water quality.
- Encourage the public to get involved in protection and improvement efforts.
- Promote a more efficient use of limited financial and human resources.

2. Management of Federal lakes should be community-driven.

The commitments and resources of local communities, private landowners, and citizens are essential to protect and improve the ecological health of Federal lakes. Protection and improvement efforts work best when they result from a need expressed by local residents (homeowners, farmers and ranchers, anglers, community leaders, and members of civic and environmental groups, water and sewer system managers, and other stakeholders who live and work in the watershed) and when these residents are actively involved in implementing solutions.

The challenge is to enable communities to make better decisions about their lakes and to foster a significant increase in public involvement in lake planning and management. Watershed residents and local governments often lack an understanding of the function and value of ecosystems and the ways that land use and land management can impact streams, rivers, and lakes. They must be convinced that solving a given water resource issue is important to meeting their personal, economic, social, or environmental needs, and the needs of their community.

For these reasons, education and public dialogue are key ingredients to management of watersheds and Federal lakes. Agencies should provide clear, accurate, and timely information about watershed conditions. They should seek frequent and meaningful public participation in planning, assessment, and management decisions, and they must be ready to help address the unique needs of individual watershed improvement efforts. Such efforts may include providing water quality information or technical assistance, helping bring watershed residents together around common concerns, or helping secure the necessary financial resources for project implementation. If called upon, agencies should be ready to help design management strategies and implement actions to achieve clean water goals on government-owned and managed lands and facilities. Emphasis should be on providing incentives for cooperative actions of benefit to water quality, riparian, and upland systems. Appendix A provides a case study in partnership building from TVA's Clean Water Initiative.

3. Federal agencies should adopt a collaborative, partnership approach for protecting and improving Federal lakes and their watersheds.

Focused, coordinated, and complimentary activities conducted by numerous government agencies are essential to maximize efficient use of limited budget resources. Federal agencies should join together to develop a common framework for addressing water quality and related aquatic resource issues in recreation lake watersheds and to develop formal agreements with

States, tribes and local governments to ensure that opportunities to work together are not overlooked. The role of government agencies may vary from watershed to watershed. Agencies may facilitate the work of watershed partnerships or they may be active partners helping to design, implement; and fund the solutions. While a few of these collaborative partnerships such as the Henry's Fork Watershed Council⁴³ are well documented, this approach needs much broader application to speed restoration and protection.

4. Management of Federal lakes should be based on a unified, scientific assessment of watershed conditions and clear definition of priority activities.

Federal agencies, States, and tribes currently use many different processes and types of information to evaluate natural resource conditions and set priorities for watershed action. Consistency in the assessment of watershed resources and conditions is an essential step in promoting collaboration among Federal land and lake managers, their partners, and communities interested in watershed health and environmental quality. A unified assessment approach would provide a basis for linking Federal, State, and tribal programs with common objectives and help resolve differing priorities.

An assessment methodology should be developed to characterize the relative health of watersheds and to identify point and nonpoint pollution sources and their impact on recreation and other desired uses. This methodology should be focused on management decisions and action oriented, recognizing that watershed data does not have to be perfect to be reliable and that management strategies can be adjusted as new information becomes available.

Processes for recognizing key watersheds and identifying and prioritizing key issues and potential projects also should be developed. Based on resource assessments, Federal agencies should work with States, tribes, communities, and other stakeholders to set priorities for protection, management, and improvement of watersheds with significant Federal lands, lakes, or trust resources. Key issues and potential projects should be identified and prioritized based on resource value (e.g., ecological uniqueness, number of threatened species, existing and potential ecological conditions, and existing and potential levels of use), resource impact (e.g., significance to human health, human use of the resource, and ecological integrity), and probability of project success (e.g., incentives and disincentives for action such as regulatory or financial barriers, political interest, and community support). Finally, project selection should ensure careful targeting of resources and alignment with pre-determined goals for watershed protection and improvement.

State, tribal, local government and community stakeholders should be full participants in these processes. Interests in forestry, wildlife, fisheries, agriculture, transportation and recreation must be included.

5. Management plans for Federal lakes should include an assessment of environmental impacts from increased recreation and a strategy for addressing these impacts.

The development of management plans for Federal lakes is subject to the requirements of the National Environmental Policy Act (NEPA). This legislation encourages informed decision making by requiring Federal agencies to analyze and disclose the potential environmental impacts under a full range of reasonable management alternatives, and to fully involve the public in the decision-making process. Through use of the NEPA decision process coupled with the solicitation of public input, Federal lake management plans can be developed that adequately address protection of environmental, cultural, and historic resources.

Additionally, lake management plans should be guided by a set of comprehensive shoreline management standards designed to protect water quality, reservoir aesthetic amenities, fishery resources, wildlife habitats, and shoreline stability. These standards should address vegetation management, construction of shoreline structures (public, private, and commercial), dredging and

² Henry's Fork Watershed Council covers eastern Idaho and western Wyoming.

channel excavations, shoreline stabilization, public education mechanisms, and incentives for community partnerships in lake shoreline management and protection.

Facility construction activities and plans should incorporate best management practices (BMP's), as defined by Section 208 of the Clean Water Act, and address minimization of erosion and sedimentation, spill containment for construction equipment, and proper handling and disposition of solid wastes.

II. Lake monitoring, restoration, and protection - the funding question.

Until 1995, funding had been provided for lakes through Section 314 (Clean Lakes Program) of the Clean Water Act, but after 1994, new funding through Section 314 was eliminated. The Environmental Protection Agency (EPA) currently provides funding for lakes protection and restoration under the Section 319 (Nonpoint Source Program) of the Clean Water Act and under the Safe Drinking Water Act (SDWA). EPA maintains that watershed-oriented initiatives for lakes have long been included in State Nonpoint Source Management Programs (Section 319). New updates to guidelines on Section 319 issued in July of 1998 (Appendix B) have clarified approaches for using 319 grants for projects formerly funded under Section 314 (Clean Lakes Program). Also, under the SDWA amendments of 1996, source water protection initiatives were a major feature of the reauthorization and activities can include projects geared to drinking water lakes and their watersheds.

The July 1998, guidance provided by EPA to its State and Regional Directors encourages regions and states to recognize the importance of lakes as key elements of the aquatic ecosystem, and is continuing to emphasize the eligibility of lakes for restoration and protection under Section 319 of the Clean Water Act. For example, EPA has revised the limitation on assessment activities established in the May 1996 guidance. Beginning in fiscal year 1999, States are authorized to use up to 20 percent of their entire Section 319 allocation to upgrade and refine their nonpoint source programs and assessments, without dollar limitation. EPA states that they expect a significant increase in the funds available to support activities such as Lake Water Quality Assessments and Phase I Diagnostic/Feasibility Studies previously funded under 314 Clean Lakes Program. EPA goes on to say that enormous potential also exists for using the Clean Water State Revolving Fund to fund lake restoration. EPA suggests that because many States will be upgrading their nonpoint source management programs in 1999, lake proponents and lake communities need to work closely with the State nonpoint source managers to ensure that critical lake management needs are clearly identified.

However, not everyone concerned with the long-term viability of the Clean Lakes Program agrees that funding through Section 319 will be an entirely effective mechanism for meeting the specific needs of lakes. On April 4, 1998, the North American Lakes Management Society (NALMS) submitted testimony to Congress supporting an appropriation of \$20 million for the Clean Lakes Program through Section 314 and on August 12, 1998, NALMS wrote to Carol M. Browner, Administrator, EPA regarding the same subject. NALMS maintains that special funding for lakes is needed because:

- Lakes are more sensitive to pollution than rivers.
- Lakes cannot cleanse themselves like rivers.
- Lakes are a natural focus of public attention
- Lakes are a tremendous economic resource.
- Not all lake problems are watershed based.
- Not all lake problems can be solved through non-point source programs.

The North American Lake Management Society conducted a survey of State lake managers in 1998. Thirty seven (37) States stated that they would prefer separate funding for lakes under 314, three (3) States felt the current funding mechanism was acceptable and eight (8) gave no definitive answer.

The Clean Lakes Program is a holistic approach which addresses the special needs of lakes. The fact is that not all lake problems can be solved through a watershed approach or through control

of non-point pollution sources; the focus of Section 319 funding. Examples of lake problems not effectively dealt with under Section 319 funding include:

- Algae blooms caused by internal recycling of nutrients.
- Fishery management issues.
- Macrophyte infestations and control.
- Treatment of contaminated sediments.
- Wetland degradation.
- Volunteer in-lake monitoring programs.

Each of these issues can seriously impact lake use and enjoyment. However, they will not be effectively addressed through a Section 319 watershed-based approach, alone.

The primary challenges are not necessarily within the Federal system, but are often at the State level. Frequently, State administrators of Section 319 funds are unwilling to reprioritize use of the funds to address specific lake problems and in some States, there is a reported breakdown of communication between State lake managers and State non-point source managers. By combining Section 314 programs with Section 319, the Clean Lakes Program has been dwarfed and its priorities have been largely lost in the much larger Section 319 non-point source effort. Clearly, there is a need to ensure that monitoring, protection, and restoration of lakes as originally envisioned in the Clean Lakes Program is adequately funded.

Therefore, staff recommends that EPA conduct a reevaluation of the effectiveness of the Clean Lakes Program funding strategy as currently conceived and that EPA specifically reconsider provision of adequate funds for the Clean Lakes Program within the Section 314 authorization.

III. Actions to Enhance Recreation - Protect Lake Health

In addition to the overall watershed impacts on lake water quality, specific recreation activities can have direct impacts to the lake ecosystem. The opportunities for lake recreation are intricately dependent upon a healthy lake ecosystem. Enhancing recreation at Federal lakes while protecting the integrity of natural resources has been the subject of concern for the last decade.

Increased recreation development (marinas, fuel docks, boat launching and storage facilities, roads, campgrounds, and parking lots, for example) can increase polluted run-off, shoreline erosion, and sedimentation and cause other water quality impacts. Similarly, increased water-related recreation use (boaters, swimmers, anglers, campers, and other lake users) can result in more litter and debris, increase nutrient loading from marine sewage, and can contribute to the introduction and spread of non-native aquatic plant species.

The quality of the recreation experience and potential for increased water-related recreation are, in turn, dependent on the quality of the lake ecosystem. Recreation users expect clean water, abundant aquatic life, and attractive shorelines. A marina operator on Kentucky Lake put it this way: “We depend upon the natural beauty of this area for our livelihood. Fishing drives my business, so it makes sense to do everything I can to improve water quality and preserve aquatic habitat.”

Nonpoint source pollution and a variety of other environmental issues will need to be addressed as recreation use and development increases on Federal lakes. The following key aspects of overall lake environmental quality should be supported by the Commission:

A. Maintenance of shoreline ecosystems.

It is at the lake-shoreline interface that managers are challenged with some of the toughest problems in maintaining lake environmental integrity. Seventy-five percent (75%) of all lake-based, water-related recreation takes place within one-quarter mile of the land/water interface. Road and trail construction, boat launching facilities, marinas, campgrounds, day-use facilities, and private structures such as docks, piers, and boathouses are all constructed in proximity to the

lake shoreline in response to public and private recreation demands. This construction can directly impact the integrity of the lake shoreline and associated environmental resources. As popular recreation lakes receive increased use and development, environmental impacts to lake shorelines can include loss of aquatic and riparian habitat for fish and wildlife, nonpoint sources of pollution from soil erosion and concentrated use activities on the shoreline, and changes in the visual quality of the natural shoreline.

Impacts to lake shorelines from recreation use and development can be avoided or mitigated. Installation of fish attractors, and beneficial structure such as brush piles, spawning benches, submerged log cribs and planting of native vegetation along shoreline margins can be helpful in maintaining aquatic habitat. Lake managers should employ a set of comprehensive shoreline management standards designed to protect water quality, reservoir aesthetic amenities, fishery resources, wildlife habitats, and shoreline stability.

The standards should address vegetation management, creation of shoreline buffer zones, construction of shoreline structures (public, private, and commercial), dredging and channel excavations, shoreline stabilization, public education mechanisms, and incentives for community partnerships in lake shoreline management and protection.

B. Marine sewage disposal.

Protection of water quality is essential if the recreation potential of a lake is to be fully realized. While water pollution problems can stem from a number of factors, the establishment and enforcement of regulations related to Marine Sanitation Devices (MSDs) is of key importance, especially on lakes that have a large number of vessels equipped with toilet facilities. Sewage from boats can jeopardize human health, negatively impact the natural environmental balance of lakes and rivers, and dissuade potential recreation users from using a lake that is known to have raw sewage discharges.

During the 1970s, the Environmental Protection Agency (EPA) published standards requiring all vessels with marine toilets to include treatment facilities or sewage holding tanks which could be pumped out at appropriate pump out facilities. EPA standards prohibit any sewage discharge on landlocked freshwater lakes or rivers which provide interstate vessel traffic. While the standards allow the release of treated sewage in other waters, these can also be declared as no discharge areas by State application to the EPA Administrator. Other legislation relevant to this issue is contained in the Clean Vessel Act of 1992. Among other provisions, this Act provides for a Federal Aid Grant Program administered by the U.S. Fish and Wildlife Service to aid in “the construction, renovation, operation, and maintenance of pumpout stations and waste reception facilities in states.”

Lake managers have an excellent opportunity to work with appropriate State agencies to ensure that applicable sewage handling regulations are being met and, if necessary, to explore the potential for declaring a lake as a “no discharge” area. Lake managers may also be able to assist States in their efforts to secure Federal grant monies to help fund needed pumpout facilities and/or educational programs. Appendix C describes a pilot demonstration for a marine pumpout facility on Fontana Lake adjacent to the Great Smoky Mountains National Park.

C. Litter and debris - prevention and cleanup.

The presence of floating or shoreline trash and debris has a significant negative impact on the recreation potential of a lake. Shoreline trash adversely impacts visual qualities and can detract from shoreline recreation activities such as bank fishing, swimming, and other day use activities. Floating debris can likewise create unsightly conditions and is a potential hazard to recreational boating and water-related associated activities such as water skiing.

Several factors can contribute to the buildup of trash and debris in the lake:

- Household trash dumped along or near stream corridors in tributary watersheds. This material can be washed downstream and collect in lakes.
- Streambank erosion within the watershed leads to loss of trees and other vegetation which are washed downstream during heavy rains.
- Dumping of household trash, building materials, and other trash on public lake lands.
- Trash left behind by lake users, usually in remote regions.

The potential negative impacts of trash and debris can be addressed in a number of ways. A program of monitoring and regularly removing shoreline trash and floating debris coupled with enforcement of littering laws can have some effect in reducing this problem. Partnerships between the agency responsible for lake management and groups such as lake user associations, conservation organizations, and other citizens can often be effective in planning and conducting clean-up activities and seeking to reduce the problem through public education. Broadening the scope of these joint efforts to include a lake's entire watershed area represents a further step and offers the greatest potential for addressing and reducing this problem over the long term.

D. Aquatic plant management - a delicate balance.

As recreation use increases on Federal lakes, conflicts over the management of aquatic plants also are likely to grow. Some lake users support a management strategy that encourages aquatic plant growth to enhance habitat for fish and waterfowl, while others support careful control to avoid potential impacts to swimming, water skiing, and recreational boating and increased mosquito populations. Another concern is the environmental impact of various control mechanisms. Increased recreation use also has the potential to exacerbate the introduction and spread of exotic, or non-native, plant species, such as Eurasian water milfoil, purple loosestrife, and hydrilla. These plants can crowd out native vegetation and become a hazard to boats, fishing, and swimming.

A 1993 study of aquatic plant coverage and outdoor recreation at Lake Guntersville, Alabama, conducted by Environmental Resource Assessment Groups, concluded that no one aquatic plant management strategy will please "all users all the time." The best option, researchers concluded, is an aquatic plant management strategy that avoids extremes (complete elimination of aquatic plants vs. maximum aquatic plant coverage). The study also suggested that the highest recreation benefits can be maintained by aquatic plant coverage on 10 to 30 percent of total reservoir acres and that control efforts should be targeted at priority areas such as boat launching areas, marinas, and public swimming beaches. Another issue that was highlighted by this research is that aquatic plant growth is very sensitive to natural conditions, such as weather factors and water conditions. Therefore, achieving a set level or target of aquatic plant coverage or any particular lake so as to maximize recreation benefits would be very difficult if not impossible to achieve on an annual basis.

Where aquatic plant populations are of concern, recreation lake management plans also should include a strategy for balancing user interests and controlling the introduction and spread of exotic species. This strategy should be developed with broad stakeholder participation and provide an annual opportunity for public review.

IV. Lake Fishery and Downstream Relationships

A. Lake Fishery Issues

In the early part of the Twentieth Century increases in dam construction were due to advances in engineering technology, earth moving equipment and the increased interest in navigation, flood control, and hydropower generation technology. Biological opinions regarding to the challenge of managing these newly constructed reservoirs were universal in their belief that "biological deserts" would result from the drowned rivers behind the dams. Early management recommendations called for stocking programs to provide game fish population in the newly formed lakes. Fish hatchery managers accepted the challenge and provided warm and cool water species to fill the niches in the newly created lakes. Early stocking efforts led to productive levels exceeding 30 pounds of fish per acre per year on some lakes. It has been three quarters of

a century since Federal lake managers initiated their early attempts at fishery management. In that time, impressive strides have been made in lake fishery science, habitat management, and enactment of protective laws which have combined to provide managers the tools to conserve and enhance recreational fishery resources.

Today, the man-made lakes support many species of fish that attract a growing number of recreationalists. Large populations of “native” species, such as largemouth bass, crappie, catfish, and perch, have developed in many lakes. Other species have been introduced, such as striped bass, lake trout, and northern pike. These introduced species often support unique trophy fisheries and take advantage of a particular habitat condition created by the lake impoundment.

While there have been many benefits to aquatic resources due to impoundment, there have also been negative impacts. Unlike a river, a lake is deep and somewhat stagnant and therefore subject to effects of stratification. Nutrients and organic material flowing into a lake settle into sediments or may be used in internal lake processes. About 50 to 75 percent of the organics are trapped in a typical lake contributing to higher productivity. Stratification in some lakes can also cause low dissolved oxygen (DO) concentrations, especially in late summer and early fall. These changes have had the greatest effect on benthic invertebrates and on the habitat and species of fish a lake can support. Benthic organisms, which spend their life in the substrate, are a vital part of the food web for fish. Benthic organisms have virtually disappeared from the deep portions of man-made lakes because of the lack of flow and DO.

Fish populations and communities have been profoundly affected by the construction of man-made lakes. Impoundment dramatically alters the river-stream habitat and the resulting food web. Changes in the species composition of the fish community can occur rapidly after impoundment. Those species whose annual migration cycles were interrupted by dams and those whose requirements for temperature, spawning habitat, or food were closely associated with riverine conditions decline in numbers or disappear entirely. Fish species that have survived or have been introduced into the lakes do not always have optimal conditions for growth and reproduction. Water level fluctuations due to operations for hydropower, water supply, or flood control can be detrimental to fish populations and recreational fishing use. The most biologically productive region of a lake is the shoreline because of submerged vegetation available for cover, nutrients, and aquatic invertebrates for food. Water level drawdowns for hydropower can destroy this vegetative cover, reduce the food supply for young fish, and expose the shallow spawning areas. Large changes in water levels due to flood control operations can discourage spawning, strand fish eggs on the shoreline, and strand fish in isolated pools. Sudden drawdowns or increases in lake levels can also effect recreational use by limiting access to certain areas of the lake shoreline. In order to improve spawning success, some lake managers are providing stable lake levels for several weeks in the spring during the peak of the spawning season.

Presence or absence of fish habitat structure within shallow and moderate water depths can have a decided effect on a lake’s fishery production. In many man-made lakes, constructed during the early 1950s, management of aquatic habitat for recreational fisheries was considered during the project planning stage. Traditionally, to provide habitat structure for fish in specific coves and embayments, timber was left unharvested in areas to be inundated. This provided excellent cover for bass and other game fish species. However, a significant amount of this standing timber has now rotted and no longer provides good habitat. Today, to replace deteriorating habitat, many state agencies, Federal agencies, and fishing clubs are cooperating in the installation of artificial fish attractors. These structures provide substrate, feeding locations, and shelter for young fish and increase overall angler success.

Recent studies show that recreational fishing continues to grow in popularity at a rate more than twice that of America’s population growth. Despite many successes over the last century in lake fishery science and aquatic resource conservation in general, society’s accelerating demand has outpaced our fishery management advances. In recognition of this, President Clinton, in June of 1995, signed Executive Order 12962 (Order) - Recreational Fisheries to improve the quality, function, sustainable productivity, and distribution of U.S. aquatic resources for increased recreational fishing opportunity nationwide. The Order established a National Recreational Fisheries Coordination Council and set timelines for adoption of a Recreation Fishery Resources

Conservation Plan. Each of the Federal agencies signatory to the plan (including all Federal recreation lake management agencies) developed and implemented individual agency plans during 1997. Ultimately, the goal is for the Recreational Fishery Resources Conservation Plan to conserve, restore, and enhance aquatic systems and fish populations and to provide increased recreational fishing opportunities.

B. Downstream Relationships

The construction of Federal dams and lake systems fundamentally changed and continues to change the character of the river systems on which the impoundments were constructed. While impoundments promoted flood control, water supply, and hydropower benefits they also disrupted the daily, seasonal, and annual patterns that are characteristic of free-flowing rivers. In some cases, the creation of artificially cold water habitats below dams has provided an opportunity for fishing for trout that would not otherwise exist. Many cold tailwaters are stocked with rainbow and/or brown trout; species which could not exist in these locations before impoundment. Other Federal dams which may not create cold water releases, still support cool and warm water species such as smallmouth bass, sunfish, catfish, white bass, sauger, shipjack herring, and striped bass. While there have been benefits to aquatic resources from impoundments, there have also been negative effects. Flows downstream of dams, especially hydropower projects, vary depending on power conditions, rather than following natural flow patterns. Wide variations in flow, depth, and temperature can occur in tailwater releases as a result of lake operations. If minimum flows are not provided below a dam, the first few miles below the dam can severely limit the habitat available to fish by limiting the wetted area available to both benthos and fish, thus restricting their movements, migration, reproduction, and available food supply. Dissolved oxygen (DO) levels in downstream releases can also fall below the concentrations necessary for growth and survival.

Low DO levels in the bottom portion of lakes in the summer and fall are the result of temperature stratification and oxygen demand. Because most hydro turbines withdraw water from this lower level, hydropower production contributes to downstream DO problems. During summer and fall some hydropower releases may be completely devoid of DO. This stresses aquatic life in the tailwater area, and limits the ability of the water to assimilate wastes that flow into tailwater areas. DO of less than 5 mg/l affects growth and levels less than 4mg/l lead to decreased survival and poor reproduction. Also, at some dams wide temperature fluctuations resulting from on-off operations of dam discharges limit habitat, effect growth, and interrupt spawning runs.

Successful improvements in minimum flows and DO in tailwater areas can provide substantial benefits to fishery and other biological resources. The amount of benefit is directly related to how closely the improved flows and DO levels approach optimal conditions for the aquatic resources present. Minimum flows can provide increased habitat and more stable short-term thermal regimes. Improvement in minimum flows and DO can contribute substantially to increased angler success and recreational fishing opportunity.

In addition to fishing, canoeing, rafting, and kayaking are important recreational activities on downstream tailwater areas. While minor in comparison to lake recreation, demand for this type of tailwater use is increasing; however, public investment in stream access facilities below dams has historically been much lower than on the lakes. In many areas of the country, where a major portion of the rivers and large streams have been impounded, tailwater areas below dams have some of the best stream recreation potential. Their potential, however, is often constrained by lack of minimum flows from the dams and limited public access in downstream areas. When hydropower turbines are off, water depths in these rivers decrease, often until only shallow pools are left. While this may create fishing opportunity, it makes it impossible to float downstream, affects the areas scenic beauty and stresses aquatic life.

Recreational floating using rafts and kayaks is increasing in whitewater streams and several of these whitewater areas are created by dam releases. One of the most visited is the Ocoee River in Tennessee. TVA provides releases from Ocoee No. 2 Dam (a single purpose power project) as part of its agreement with the state of Tennessee. Congress appropriated monies to TVA to compensate for the value of the water that is released from Ocoee No. 2 Dam without going

through the powerhouse. These monies are being repaid from user fees collected from floaters as part of the fee they pay to outfitters for each float trip. On projects where the reduction in hydropower generating capacity must be mitigated or replaced when water is released for other purposes, this serves as a model for the type of financing that may be possible.

Outfitters who take visitors on float trips must have guaranteed releases in order to operate as a successful business. Local governments also support the outfitters often viewing whitewater recreation as a key component in their economic future, like lake recreation and tourism.

Although several lake managers provide increased minimum flows below dams to enhance aquatic habitat, these flows are often not great enough to enhance recreational floating opportunity to any great extent.

In many downstream tailwater areas, lake managers have the latitude to regulate water levels and streamflows to achieve recreational purposes when such releases are also consistent with the objectives of flood control, water supply, hydropower, and navigation. For example, the Corps of Engineers modified dam operations in 1984 to enhance downstream recreation for 21 days during the fall drawdown of the Summersville Reservoir in West Virginia. The Corps modified its operation to allow for pulsed flows during daylight hours to extend the availability of reliable water releases during dry years. Since that time, use of Gauley River National Recreation Area during the fall drawdown has doubled according to data provided by the West Virginia Department of Natural Resources. However, in many situations Federal managers and agencies have no policy to assure additional flows and are not externally required to provide or maintain them.

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APPENDICES

Appendix A, Case Study (TVA-Clean Water Initiative)

Appendix B, Guidance on Use of Clean Water Act and Safe Drinking Water Act Authorities to Address Management Needs for Lakes and Reservoirs

Appendix C, Fontana Reservoir Marine Pumpout Facility Demonstration Project

Appendix A

Case study (TVA-Clean Water Initiative)

Building Partnerships for Clean Water In the Tennessee Valley

The Tennessee Valley Authority's Clean Water Initiative (CWI), formed in 1992, illustrates what can be accomplished by developing partnerships at the watershed level to help communities achieve local clean water goals. In just five years, water resource conditions have improved in over 100 of the Valley's 603 hydrologic units—the result of improvement projects undertaken in partnership with over 60 grassroots groups.

In an average year, TVA "River Action Teams" work with citizens, businesses, environmental groups, and other government agencies to:

- Install 100 Best Management Practices to reduce pollution from urban and agricultural lands and facilities.
- Fence 50,000 feet of stream banks to keep livestock out of streams.
- Stabilize 12,000 feet of eroding stream banks and ten miles of critically-eroding lake shoreline.
- Install 2,500 structures to improve fish habitat and fishing.
- Remove 3,000 tons of trash and litter from stream banks and shorelines.

CWI Manager Wayne Poppe attributes this success to several factors—an interdisciplinary approach (River Action Teams include community relations and education specialists, as well as various water resource experts), an assessment process that focuses on management decisions, and an outcome-oriented approach to performance measurement. But the key, he says, is engaging watershed residents in protecting and improving local water resources. "Our goal is to see our local partners take ownership of their lakes, rivers, and streams—to build grassroots organizations with a commitment to long-term environmental improvement."

This focus on engaging citizens in watershed improvement drives TVA's efforts from start to finish, according to Poppe. "Our monitoring efforts are designed to give watershed residents the information they need to make good decisions about their water resources. We select projects based on local interest, as well as resource condition. Our River Action Teams work shoulder-to-shoulder with citizen groups to put projects on the ground. We've learned from experience that this kind of thing just won't work from the 'top down.' It's got to be community-driven."

Appendix B

Guidance on Use of Clean Water Act and Safe Drinking Water Act Authorities to Address Management Needs for Lakes and Reservoirs

July 9, 1998

MEMORANDUM

SUBJECT: Guidance on Use of Clean Water Act and Safe Drinking Water Act Authorities to Address Management Needs for Lakes and Reservoirs

FROM: Robert H. Wayland III, Director /s/
Office of Wetlands, Oceans and Watersheds

TO: EPA Regional Water Division Directors
State and Interstate Water Quality Program Directors

The purpose of this supplemental guidance memorandum is: to encourage regions and States to recognize the importance of lakes, ponds, and reservoirs as key elements of the aquatic ecosystem which provide valuable habitat for fish, wildlife, and plants and important recreational opportunities for people. Natural lakes and reservoirs are often sources of drinking water. To provide these important services lakes need to be protected from pollution. A number of Clean Water Act (CWA) programs can and should help to protect and restore lakes. In particular, I want to emphasize the eligibility of lake and reservoir restoration and protection activities under section 319 of the CWA; to ensure the listing of impaired and threatened lakes and reservoirs on section 303(d) lists prepared by States, tribes, and territories (referred to collectively as "States" in this guidance); and to encourage greater use of the CWA State Revolving Fund (CW-SRF) for implementing priority lake and reservoir management projects in approved State nonpoint source (NPS) management programs.

Section 319 Nonpoint Source Program

A recent survey conducted by the North American Lake Management Society (NALMS) of State lake managers indicates considerable variability in the use of the CWA section 319 NPS Program for supporting lakes-related work previously funded under the CWA section 314 Clean Lakes Program. A copy is provided for your information. In the May 1996 *Nonpoint Source Program and Grants Guidance for Fiscal Year 1997 and Future Years* we noted:

Lake Protection and Restoration Activities

Lake protection and restoration activities are eligible for funding under Section 319(h) to the same extent, and subject to the same criteria, as activities to protect and restore other types of waterbodies from nonpoint source pollution. States are encouraged to use Section 319 funding for eligible activities that might have been funded in previous years under Section 314 of the Clean Water Act. However, Section 319 funds should not be used for in-lake work such as aquatic macrophyte harvesting or dredging, *unless the sources of pollution have been addressed sufficiently to assure that the pollution being remediated will not recur.*" [emphasis added]

The following must be met for lakes work to be eligible for funding under section 319:

1. States need to ensure that critical lake and reservoir management needs are clearly identified in State section 319 NPS management programs. This is particularly important because the CWA explicitly requires that section 319(h) grants are to be made "for the purpose of assisting the State in implementing such (NPS) management program(s)." Thus, in order for an activity to be eligible for funding under section 319(h), the activity must be included in a State NPS management program. State lake managers and lake communities will need to ensure that critical lake and reservoir NPS control needs are included in any updated State NPS management programs so that such activities will be eligible for funding under section 319(h). Lake managers should also be sure to include in-lake management practices, such as aeration, dredging, etc., as part of their list of eligible NPS best management practices.

2. The same types of monitoring activities funded under section 314 are grant eligible under section 319, subject to the following limitations:

Given that the primary objective of the section 319 program is for *implementing* State NPS programs, the May 1996 guidance established that a limited amount of grant funds could be used for updating State NPS management programs and NPS assessments, including Statewide lake water quality assessments and assessments of specific lakes. Specifically, the May 1996 guidance says "States may use up to 20 percent of their section 319(h) funds or \$250,000, whichever is less, to update and refine their programs and assessments." The guidance refers to several other assessment activities that this restriction applies to, including developing total maximum daily loads and other watershed-scale strategies to reduce NPS pollution.¹

The above financial cap does not apply to monitoring or assessment activities done in the context of a specific watershed implementation project which is using baseline monitoring, in conjunction with follow-up monitoring, to determine the effectiveness of that particular NPS implementation project. In fact, the May 1996 guidance encourages evaluation of all 319 funded watershed projects in some manner and continues the national monitoring program to intensively monitor and evaluate a subset of watershed projects funded under section 319. These national monitoring program projects, some of which contain lakes, all include baseline monitoring to establish conditions before NPS controls are implemented.

For additional clarification regarding section 319 lakes-related policy see the attached "Questions and Answers on the Relationship Between the Sec. 319 Nonpoint Source Program and the Sec. 314 Clean Lakes Program," issued by EPA in November 1996.

Other Clean Water Act Authorities and Initiatives

In addition to section 319 other CWA-related authorities and initiatives should be used to ensure that priority lake and reservoir management needs are met including the following:

1. A major action item in the *Clean Water Action Plan* is the development of unified watershed assessments. Guidance has recently been issued which calls for States to submit draft unified watershed assessments and watershed restoration priorities for Federal and broad public review by August 1, 1998, and for final assessments and priorities to be completed by October 1, 1998. Most of the new Federal resources proposed for FY 1999 and beyond will be targeted to developing and implementing watershed restoration action strategies for the watersheds identified in these unified watershed assessments in most in need of restoration.

The implementation of the *Clean Water Action Plan* provides further impetus for placing high priority especially on restoring lakes that are in need of restoration. Lake managers' input should be solicited to assure the inclusion of lakes with impaired water quality in States' unified watershed assessments, and appropriate priority should be placed on the development and implementation of watershed restoration action strategies to solve these

¹ More recently, in anticipation of a significant increase in funds for NPS grants in FY 1999 and beyond as highlighted in the Clean Water Action Plan, we have indicated an intent to eliminate the \$250,000 cap.

lakes' problems. I encourage States to use section 319 funds to help assist in the implementation of these strategies, with particular emphasis on watersheds in most need of restoration. (see Unified Watershed Assessment guidance at: [MACROBUTTON HtmlResAnchor http://www.epa.gov/cleanwater/uwafinal/](http://www.epa.gov/cleanwater/uwafinal/))

2. States also need to ensure that lakes and reservoirs which are impaired or threatened, and require total maximum daily loads (TMDLs) are included on state section 303(d) lists. The Clean Water Action Plan stresses the importance of giving priority to waters identified on section 303(d) lists in unified watershed assessments, including priority for new funding available in FY 1999 and beyond.

3. EPA is encouraging greater use of the Clean Water State Revolving Fund (CW-SRF) to address NPS problems. In creating the CW-SRF, Congress ensured that it would be able to fund virtually any type of water quality project, including NPS, wetlands, estuary and other types of watershed projects, as well as the more traditional municipal wastewater treatment systems. Of importance to lake managers, the CW-SRF can fund virtually any type or category of NPS pollution as long as the problem is identified in State NPS management programs. The CW-SRFs have in excess of \$24 billion in assets and since 1989, the SRF has funded more than \$650 million in NPS projects. Thus, in addition to the annual grant funds available under section 319, an enormous potential exists for using the CW-SRF to fund lake and reservoir restoration and protection projects as well as projects for other waterbody types. See the CW-SRF website for more information at: [MACROBUTTON HtmlResAnchor http://www.epa.gov/OWM/finan.htm](http://www.epa.gov/OWM/finan.htm)

4. Finally, the Safe Drinking Water Act Amendments of 1996 (SDWA) include new provisions for protecting source waters, including ground and surface water sources of drinking water. EPA issued guidance for the SDWA Source Water Assessment and Protection Program in August 1997 and now source water assessments are to be completed for all public water supplies, many of which are lakes or reservoirs. In EPA's guidance for the Source Water Assessment Program we encouraged States to use existing lake and reservoir studies conducted under section 314 and 319 in the development of source water assessments. Once the State Source Water Assessment and Protection Programs are completed and approved by EPA, these will provide the basis for identifying additional implementation needs which can be met through section 319, the CW-SRF, the separate Drinking Water State Revolving Fund (DWSRF) created by the new SDWA, and other programs. See EPA's Office of Ground Water and Drinking Water website for more information on the SDWA Source Water Assessment and Protection Program and the DWSRF at: [MACROBUTTON HtmlResAnchor http://www.epa.gov/OGWDW/programs.html](http://www.epa.gov/OGWDW/programs.html)

Next Steps

The above policy clarification is intended to assist EPA regional, State, tribal, territorial and local staff working on lake and reservoir programs, the section 319 program, the TMDL program, the CW-SRF and the SDWA program to address the management needs of lakes and reservoirs. EPA Regional staff should meet or discuss with their counterparts in the States how the above policy considerations can be applied to meet lake and reservoir management needs in a particular State. This integration of lake and reservoir management needs into the section 319 and the 303(d) program is an important component of watershed based efforts to ensure that priority lake and reservoir problems are addressed under section 319, the CW-SRF and other programs.

If you have any questions or comments, please call me at (202) 260-7166 or Geoff Grubbs at (202) 260-7040.

Attachments

- cc. Robert Perciasepe
- Office of Water Office Directors
- EPA Regional Administrators
- EPA Regional Nonpoint Source Coordinators
- EPA Regional Clean Lakes Coordinators
- EPA Regional TMDL Coordinators
- EPA Regional CW-SRF Branch Chiefs
- EPA Regional Drinking Water Branch Chiefs

Appendix C

Fontana Reservoir Marine Pumpout Facility Demonstration Project

Introduction

Fontana Reservoir is a 10,600 acre power storage reservoir built in 1944 on the Little Tennessee River located from Little Tennessee River Mile 61 to 90. The reservoir is a deep oligotrophic mountain reservoir that undergoes extensive draw down, approximately 70 feet annually. Most of the drawn down zone has eroded so much that most of the shoreline is exposed rock. Almost all the land along the north shoreline belongs to the Great Smoky Mountain National Park and most of the land on the south shoreline is in U.S. Forest Service (USFS) ownership. The Tuckasegee River and the Little Tennessee River are the two primary systems draining into Fontana Reservoir.

Background

In 1978, TVA published regulations prohibiting construction or placement of new non-navigable houseboats on its reservoirs. Non-navigable houseboats existing prior to the regulations were assigned a number and permitted to remain subject to certain restrictions. There are about 174 of these “grandfathered” non-navigable structures remaining on Fontana Reservoir. Since 1978 approximately 133 new floating cottages have been constructed on Fontana Reservoir. In addition there are approximately 76 larger commercially manufactured boats on Fontana Reservoir. Almost all of these 383 navigable and non-navigable vessels and/or floating structures are being utilized like a second home for overnight accommodations. Consequently, they all generate marine sewage.

Fontana Reservoir is classified as a non-discharge reservoir. Currently there are no marine waste pumpout facilities or services available on the reservoir for lake users or marina/boat dock operations. Therefore, to be in compliance with State and local regulations, users have to carry marine waste to an off reservoir location for disposal. We suspect that much of the waste is not being handled in this manner. Officials and citizens alike state that marine waste has been observed being discharged directly into the lake.

Scope

TVA was approached in 1996 by a concerned marina owner regarding this issue. Tony Sherrill of Alarka Boat Dock has investigated funding sources with the State of North Carolina, implemented management practices in his harbor area to reduce or eliminate direct dumping by his customers, and, has attempted to put together, at his expense, an acceptable waste disposal alternative for the users in his area of the reservoir. Recently Mr. Sherrill volunteered to enter into a cooperative agreement with TVA and others which would not only provide pumpout services to his patrons, but to other reservoir users who might utilize these services.

TVA proposes to implement a demonstration project that would take advantage of Mr. Sherrill's offer and evaluate the use of a marine sewage pumpout system that would eventually provide a reasonable alternative for waste disposal to all lake users on Fontana Reservoir.

Project Proposal

TVA has acquired a vessel through an inter-agency transfer from the National Oceanic Atmospheric and Administration. This vessel has been outfitted for pumpout vessel use, with pump equipment provided by Mr. Sherrill, and a temporary storage tank for collecting the marine waste. Alarka Boat Dock will operate the vessel to collect marine waste from navigable and non-navigable vessels on a weekly or as needed basis. Marine waste will be collected from portable MSD's, or vessel temporary storage tanks. The waste would then be disposed of in accordance with State regulations.

Currently, holding tanks are prohibited under State regulations. While research is being conducted for a permanent septic tank fill site by TVA and USFS personnel, the waste would be temporarily held in a land-based storage tank at Alarka Boat Dock and disposed of on a weekly, or as needed, basis through an existing contract with a licensed commercial pump and haul service.

Task 15

Identify how enhanced recreation opportunities can be measured -- quantity and quality

I. There is no current measurement within the agencies of recreation quality and quantity and no standard of measurement across the agencies. There is no likelihood that the Commission can impel all seven agencies to adopt a new system of measurement. The Commission may, however, convince agencies to adopt a standard measure of quality and quantity using the existing congressionally imposed Government Performance & Results Act of 1993 (GPRA).

GPRA directs that all Federal agencies will base their work on performance management, through the use of measurable goals, to provide a process to ensure that the agencies are doing the right things for the right reasons. Each agency now develops a strategic plan for each subunit (park, refuge, forest) explaining why the unit exists and what its mission is, what goals management and staff should be achieving to fulfill its mission and how they will organize to achieve the goals within specific time frames.

Since this is a relatively new program current GPRA plans are not using a consistent definition for measures, goals, or objectives. This paper will use the terms Performance Measure, Performance Objective, and Strategy to analyze the plans for measures of recreation quality and quantity.

Appendix I of this report provides what each agency has determined to be its recreation oriented strategic plan for FY 1998. Staff has extracted the actual plans whenever possible so as not to misquote or misinterpret individual plans.

Appendix II provides a detailed discussion of the Forest Service's Meaningful Measures Process and the Corps of Engineers' Natural Resource Management Branch standards that were not part of the Corps Strategic Plan.

The last section of this review, entitled "staff analysis," provides recommendations for the Commission on the usefulness of this information in its work and recommendations it might consider to direct the agencies to pursue.

Strategic Plans Analysis

A. **Forest Service** (FS) recreation performance measures pertain to the implementation of the Meaningful Measures Process (MMP), which is discussed below. MMP gives the FS quality indicators of where it is in relation to its goals. The FS Appendix II to their GPRA plan shows one goal that impacts recreation management.

Summary of Performance Measures: The only recreation strategy was directed toward the implementation of MMP and the number of "constructed feature types" that would be included in the MMP. Constructed Features are defined by the FS as any item permanently placed or constructed in the environment, including land areas heavily modified for a particular purpose. These included, but are not limited to: buildings, parking lots, trails,

toilet facilities and boat ramps.

- The FS will use the MMP to create an accurate base line of information in order to adequately track its progress to provide facilities for the users of national forests.

B. National Park Service (NPS) has addressed a very comprehensive list of performance measures that provide or impact the provision of recreation. There are four Goal Categories and then several mission goals within those categories that NPS is using as evaluative measures to judge its achievement.

Summary of Performance Measures:

The first category is the **preservation of park resources** -- in particular, air and water quality. Park air and waters represent an important part of the visitor experience. If they are not within Federal, State and local standards, they can greatly diminish the enjoyment of the National Park System for the visitor. Without maintaining consistently high standards, the NPS cannot support a meaningful and enjoyable experience for the visitor. Using 1997 as a base year, the NPS will maintain or improve air quality in 50% of class I parks and reduce by 10% the number of days that water quality fails to meet State swimming standards.

The second category **provides for the public enjoyment and visitor experience of parks**. A NPS Strategic Goal states: "Visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities, services, and appropriate recreation opportunities." Enjoyment of the parks and its resources is a fundamental part of the visitors' experience. Park facilities and services include campgrounds, roads and trails, water systems, interpretive walks and talks, boat tours, and crime prevention. The NPS will rely on visitor evaluations as a performance measures

The third category is to **strengthen and preserve natural and cultural resources and enhance recreation opportunities managed by partners**. The NPS will use the following measurements to judge its success in strengthening and preserving the resources and enhancing opportunities: 1) Through partnerships with other Federal, State, and local agencies and nonprofit organizations, a nationwide system of parks, open space, rivers, and trails provides education, recreation, and conservation benefits for the American people. 2) Through conservation assistance provide 1,100 additional miles of trails, 1,200 additional miles of protected river corridors, and 35,000 additional acres of parks and open space, from the 1997 totals conserved with NPS partnership assistance. 3) Assist through Federal funds and programs, the protection of recreation opportunities as achieved through formal mechanisms to ensure continued access for public recreation use.

The fourth and last category is to **ensure organizational effectiveness**. This category would provide for the better management of the National Park Service and in particular their work with concessioners. The NPS will strive to increase its managerial capabilities through initiatives and support from other agencies, organizations and individuals. In particular as

this category addresses concessions' returns, the NPS will increase the average return for park concession contracts to at least 10% of gross concessioner revenue. Also in the area of fee receipts, NPS will work to increase by 20%, over the 1997 level, the amount of receipts from park entrance, recreation, and other fees in all parks that collect fees. This goes beyond the current Fee Demonstration Program.

- These goals all have applicability to and could be used by a Recreation Lakes System to support the increase of recreation for the visitors' use and enjoyment.

C. Corps of Engineers (COE) recreation performance measures are not mentioned in the Department of the Army's Civil Works Programs Strategic Plan. They are part of the Natural Resource Management (NRM) Branch's Strategic Plan. For the actual set of recreational performance measures please see that plan listed below in Appendix II which covers other types of plans. For consistency we will treat the Natural Resource Management Branch's Plan as if it were a part of the Corps' Program Strategic Plan.

Summary of Performance Measures:

The NRM Branch has two measures that address recreation. The first goal is aimed at providing outdoor recreation opportunities in an effective and efficient manner and to increase them by 20 percent during the year. The agency will measure the effectiveness of this goal within the implementation of the user fee program. The second goal is directed at continuing to provide outdoor recreation opportunities to meet the needs of present and future generations. The Branch will measure their success in this by using visitor surveys.

- The Commission should pay particular attention to these goals; while other Study agencies are measuring the provision of recreation opportunities, the Branch is one of the few to be looking to providing *future* opportunities for their visitors. Most other agencies did not look to future uses by succeeding generations.

D. Tennessee Valley Authority (TVA) recreation performance measures include 1) summer lake level attainments, 2) percent of campground occupancy, and 3) comprehensive reservoir land plans which include recreation facilities operations.

Summary of Performance Measures:

Of the Study agencies, the TVA is the one most operated like a business. TVA has made a historic commitment to the visitor to maintain tributary lakes at high levels during June and July to support recreation uses due to the significant economic development impact on the surrounding communities.

In measuring the percent of occupancy in camp sites, the TVA has seemingly low average levels of occupancy. The TVA lakes are used at the highest rate for summer weekends, not year-around.

The last Goal for the TVA is to increase the number of reservoirs with completed

comprehensive reservoir land plans. The TVA, like all Federal agencies, uses comprehensive plans to reduce the potential conflicts of the different users of the lands and waters that it manages. TVA will complete three reservoir plans in 1998 and begin work on three more in 1999.

- TVA lakes are representative of the majority of the Study's lakes. They are not like the destination lakes, like several of the Bureau of Reclamation (BOR) Lakes or those managed by NPS, where visitor usage is year-round and for weeks at a time.
- TVA's plan also explains the coordinating work that it does with specifically listed sister agencies, which no other Study agency has done in its Plan.

E. The **Fish and Wildlife Service (FWS)** GPRA emphasizes the American public's understanding of how their well-being is intricately interwoven into the ecosystems they share with fish and wildlife.

Summary of Performance Measures:

The FWS has only one recreation goal in its plan. It is to provide opportunities for the public to participate in using the resources that it manages. The FWS outlines two strategies to achieve this goal. First, FWS will establish recreation fishery mitigation objectives with other Federal agencies' water projects, such as the BOR. Second FWS will, increase opportunities for Americans to participate in recreation opportunities that are compatible with refuge management plans. After establishing a baseline for recreation fishery mitigation objectives, FWS will improve its performance by 5%. The second measure will be to increase by 10% the opportunities for public participation in compatible fish and wildlife dependent recreation.

F. **Bureau of Land Management (BLM)**, one of the Nation's principal natural resource management agencies, provides a variety of goods and services to the public. Many of these are resource-based and tied directly to public lands. For example, BLM provides the public with a wide variety of outdoor recreation opportunities, authorizes the use of the public lands for resource commodity production and other commercial activities, protects and preserves nationally significant natural and cultural heritage resources, and enforces Federal laws and regulations related to public lands.

Summary of Performance Measures:

The BLM has developed Performance Goals that address some areas that no other agency does and which recognize the role that recreation, travel and tourism play in supporting economic growth. The BLM is also starting to address the management of recreation activities to maintain public land environmental health standards which would reduce the overuse and misuse of public lands.

- BLM's plan also identifies a "local and regional recreation niche" for the BLM vis-a-vis other Federal and State recreation providers.

- The BLM is also looking to expand its electronic reservation system (which is not included in any other Study agency strategic plan.

G. Bureau of Reclamation (BOR) has two Mission Objectives that focus on the provision or protection of water-based or related recreation. The BOR's mission objectives are: 1) to manage, develop, and protect water and related resources, and 2) to protect the environment.

Summary of Performance Measures:

The first strategy that the BOR will use in addressing its Mission Objective of managing the water and related resources will be to better maintain and rehabilitate its facilities.

The Mission Objective of protecting the environment will be addressed by two strategies:

1) To develop and manage Reclamation projects to conserve and appropriately enhance fish and wildlife habitats and populations. There is no mention of coordinating with other Federal agencies such as the Fish and Wildlife Service. Also, there are no percentage measures attached to the goals in the Strategy, as there are in other Study agencies' plans. It will be difficult to determine if there is any measurable progress on this goal.

2) To effectively and efficiently manage Reclamation land and water to enhance recreation use in partnership with others and consistent with authorized project proposes. Again there are no performance measures.

The BOR also has a five-year strategic goal to contribute to the national economy and social well-being by providing travel, tourism, and recreation opportunities on public lands. No measure has been attached to this goal.

II. Staff Analysis

There is no standard method within Federal agencies of analyzing the enhancement of recreation opportunities. However, there is one system of measurement -- the GPRA Strategic Plans. It is the only Government-wide system in place that could measure quality and quantity of recreation enhancement for the Study Agencies. Not even GPRA ensures that all Federal agencies provide the same information in the same manner.

The Corps of Engineers, which manages the largest number of lakes in the study, does not even include recreation in its overall GPRA Strategic Plan.

III. Recommendations

- 1. The Commission should recommend Natural Resources Management Branch plan should be incorporated in the Corps GPRA Strategic Plan.**
- 2. The Commission should recommend that each agency add recreation quality and quantity performance measures in its year 2000 GPRA Strategic Plan.**
- 3. The Commission should recommend that all seven agencies work out consistent water-based recreation performance measures that make tracking recreation enhancement on Federal lakes by the Administration and Congress possible.**

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Appendix I

Relevant sections of the Agency's GPRA Strategic Plans

A. U. S. Department of Agriculture, Forest Service

The following section is extracted from the GPRA Strategic Plan of the Forest Service. It is the only section that directly addresses recreation or the provision of recreation.

Annual Goal D2_2. Implement Meaningful Measures Process (MMP).

Performance Indicators	Planned GPRA	Benchmark	Accomplishments
Number of constructed feature types included in the MMP	All constructed feature types included in MMP	All in compliance	Data not available
Percent of units using MMP	100%	All units using MMP	100%

Outcome Analysis: The annual goal planned for FY 1997 was achieved. Meaningful Measures for Quality Recreation Management is a recreation management concept that sets standards of quality for all aspects of the recreation program (facilities, sites, areas, etc.), determines realistic costs, helps to prioritize work, assists in budget allocation, and sets the stage for effective monitoring of results.

The number of constructed feature types included in the MMP will not be available until all units have fully implemented the MMP. All units are using the MMP, however full implementation is not planned until the end of FY 1998. The MMP refinement and implementation at the forest level continues while other components are intended to be completed in FY 1998. FY 1999 will be the first year of full implementation.

B. U.S. Department of the Interior, National Park Service

National Park Service performance measures address providing resource protection and providing opportunities for recreation experiences for park visitors. Listed below are all goals that address the provision of recreation or protection of lands and water for recreation.

Goal Category I: PRESERVE PARK RESOURCES

Covers disturbed lands, exotic species, threatened and endangered species, air quality, water quality, historic structures, museum collections, cultural landscapes, archeological sites.

Long-term goals to be achieved by September 30, 2002

Ia3. Air quality - Air quality in at least 50% of class I park areas improves or does not degrade from 1997 baseline conditions.

Explanation:

National Park Units with clean air issues include Grand Canyon National Park, Great Smoky Mountains National Park, and Crater Lake National Park. Goal Ia3 responds to the NPS Organic Act and the Clean Air Act, which holds the NPS responsible for protecting park air quality and air quality related values from adverse effects of air pollution. Because park air quality conditions result from the cumulative impacts of regional emission sources, the NPS has limited ability to effect changes in air quality, but it does participate in the formulation of Federal and State regulatory programs and policies that protect park resources. Given the amount of time needed to process, validate, and analyze air quality data, reports will be for the preceding year. Of the 48 class I parks, 37 currently monitor air quality for visibility, 25 monitor for ozone, and 21 for acid rain. These parks will be used to develop the baseline during FY 97. The associate director for natural resources stewardship and science will consolidate and report on this goal.

Ia4. Water Quality - Reduce by 10%, from 1997 levels, the number of days park recreation waters fail to meet State water quality standards for swimming.

Explanation:

Park waters representing nationally significant recreation opportunities including rivers, streams, and lakes in both recreational and natural units. Many parks' waters are designated for recreation use, including Buffalo National River, Delaware Water Gap National Recreation Area, and Lake Mead National Recreation Area. Park recreation waters are closed when they fail to meet State or Federal water quality standards for swimming. This goal measures the number of days each beach in a park is closed, and it is used because a more comprehensive water quality goal and measurement is not currently feasible. Eventually, this goal will be measured by the number of days park waters fail to meet broader applicable State and Federal water quality standards. Data reported in 1997 will be used to develop the baseline. The associate director for natural resource stewardship and science will aggregate data reported on this goal.

Goal Category II: PROVIDE FOR THE PUBLIC ENJOYMENT AND VISITOR EXPERIENCE OF PARKS

Long-term Goal to be achieved by September 30, 2002:

Mission Goal IIa: Visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities, services, and appropriate recreation opportunities.

Enjoyment of the parks and their resources is a fundamental part of the visitor experience. Visitor enjoyment and safety are affected by the quality of park programs, facilities, and services, whether provided by the National Park Service, a concessioner, or a contractor. Availability of park facilities, services, and recreation opportunities refers to convenient locations and times of operations that fit the visitor's transportation and schedule needs. In accordance with Uniform Federal Accessibility Standards, accessibility for special populations refers to their accommodation, where appropriate, when visiting Federal and concession-operated facilities or when participating in authorized recreation activities. Diversity of facilities and services refers to a range of appropriate accommodations and recreation opportunities (at various prices and levels of expertise and interest) for park visitors seeking a range of park experiences. Quality of facilities and services refers to well-presented, knowledge-based orientation, interpretation, and education. Appropriate recreation opportunities are consistent with a park's purpose and management and are not harmful to resources or park visitors.

Ila1. Visitor satisfaction - 80% of park visitors are satisfied with appropriate park facilities, services and recreation opportunities. Park facilities and services include campgrounds, roads and trails, water systems, interpretive walks and talks, boat tours, and crime prevention. NPS visitor evaluations of park facilities, services and recreation opportunities are important and useful in providing visitors services.

Goal Category III: STRENGTHEN AND PRESERVE NATURAL AND CULTURAL RESOURCES AND ENHANCE RECREATION OPPORTUNITIES MANAGED BY PARTNERS

Long-term Goals to be achieved by September 30, 2002:

Mission Goal IIIb: Through partnerships with other Federal, State, and local agencies and nonprofit organizations, a nationwide system of parks, open space, rivers, and trails provides education, recreation, and conservation benefits for the American people.

IIIb1. Conservation Assistance - 1,100 additional miles of trails, 1,200 additional miles of protected river corridors, and 35,000 additional acres of parks and open space, from the 1997 totals are conserved with NPS partnership assistance.

Explanation:

Since 1958, assessments of American outdoor recreation needs and opportunities have identified major shortages of parks, open space, trails, and protected waterways. Most inadequate are close-to-home outdoor opportunities. The NPS provides technical assistance to States, communities, and nonprofit organizations so they can protect more of these resources and provide improved local recreation opportunities. Projects are selected for maximum community impact, strong public involvement and local support, and the high likelihood that NPS technical assistance will result in the protection of significant resources and the enhancement of recreation opportunities.

NPS partnership programs provide technical assistance at the initial stages project conceptualization and planning. On-the-ground results are not evident until several years after the NPS involvement ends. Progress toward this goal is measured five years after active NPS assistance ends on each project. Field staff review the projects and record the resulting new miles of trails, protected river ways or additional acres of protected greenspace. All net increments of miles and acres indicate progress toward the goal. The associate director for cultural resources uses a database to track these measures. Suitable national baseline inventories of these resources are not currently available, but will be developed in cooperation with the FS.

IIIb2. Community Satisfaction - 80% of communities served are satisfied with the NPS partnership assistance in providing recreation and conservation benefits on lands and waters.

Explanation:

The NPS provides technical assistance to States, communities, and nonprofit organizations to help them protect significant land and water resources and provide more local recreation opportunities. Achievement of on-the-ground results depends on the actions of partner groups and other local interests. In many cases, these needed actions will not take place unless technical assistance services provided by the NPS are considered satisfactory. Progress toward this goal is measured during a routine project closeout process. Key community participants evaluate the quality of the technical assistance services provided. These project evaluations measure community satisfaction. The associate director for cultural resources stewardship and partnership will prepare national summaries and maintain a national technical assistance project database to track this goal.

Mission Goal IIIc: Assisted through Federal funds and programs, the protection of recreation opportunities is achieved through formal mechanisms to ensure continued access for public recreation use.

Explanation:

The 40,000 recreation properties, as of 1997, assisted by the Land and Water Conservation Fund, the Urban Park and Recreation Recovery Program, and the Federal Lands to Parks Program are protected and remain available for public recreation.

The State matching grant program from the Land and Water Conservation Fund has significantly expanded America's outdoor recreation estate during the past 30 years. For the past 19 years, the Urban Park and Recreation Recovery Program has had a positive impact on recreation facilities and opportunities in America's cities. Together these programs have funded more than 38,500 parkland acquisition, development, and rehabilitation projects in nearly every county and major city in the United States. Since 1949, the Federal Lands for Parks has transferred nearly 1,300 surplus Federal real properties (more than 144,000 acres) to States, territories, and communities for recreation and conservation.

This long-term conservation goal uses regular inspections and other monitoring methods to identify protected sites diverted -- or in danger of being diverted -- from public recreation use. Applying various tools, including assistance and regulatory and legal remedies, usually results in replacement-in-kind for diverted recreation lands and facilities. The data on sites, those sites at risk, and replacement sites are maintained in current comprehensive databases. The absence of net losses from these resource inventories indicates that this goal is being met. The associate director for cultural resources stewardship and partnerships is responsible for reporting progress on this goal.

GOAL CATEGORY IV: ENSURE ORGANIZATIONAL EFFECTIVENESS

Mission Goal IVb: The NPS increases its managerial capabilities through initiatives and support from other agencies, organizations and individuals.

Long-term Goals to be achieved by September 30, 2002

Ivb3. Concessions Returns - Increase the average return for park concession contracts to at least 10% of gross concessioner revenue.

Explanation:

Park concessions provide a variety of services for visitors, including hotel rooms, gas stations, meals and merchandise. The average return for park concessions contracts include franchise fees and building use fees, which are sent to the U.S. Treasury as miscellaneous receipts. Other returns are the improvements accounts requirements for park concession improvements (which become government assets and for which the concessioner receives no possessory interest) and extinguishment of possessory interest (a future potential liability to the government or impediment to contract competition).

The return to the government has increased from 3.5% in 1992 to an estimated 6.7% in 1996, based on fee reconsideration required by contracts every five years and renewal contracts with new fee provisions. The projected increase to 10% by 2002 is based on additional contracts with increased returns to the government that have been renewed thought 2001. Data collection will be conducted by the parks, with tracking and analysis, service-wide, conducted by the associate director for park operations and education.

Ivb4. Fee Receipts -- Increase, by 20%, over the 1997 level, the amount of receipts from park entrance, recreation, and other fees.

Explanation:

The NPS currently collects approximately \$80 million annually using the Land and Water Conservation Fund. The Recreation Fee Demonstration Program, a three-year demonstration program beginning in 1997, allows the NPS to raise existing fees and to

charge new fees for recreation activities. NPS increased fee collection from this program are estimated at \$50 million annually. If the NPS loses the Recreation Fee Demonstration Program authority after 1999, this servicewide long-term goal will have to be readjusted. Data collection will be conducted by the associate director for park operations and education.

C. U.S. Department of the Army, Corps of Engineers has no mention of recreation in its own GPRA Strategic Plan. The Natural Resource Management Branch has created goals for its use to determine its progress in providing quality recreation for the American public.

D. Tennessee Valley Authority includes the following performance measure that address provision of recreation.

Goal 1 - Operate the Tennessee River system to minimize flood damage, maintain navigation, generate electricity, provide acceptable water quality, protect public health, and support recreation uses.

□ *Strategy 1.E. Support recreation uses of the river system and associated Federal lands.*

Performance Goal: • Summer Lake Level Attainment
• Percent Occupancy at Campgrounds

Relationship between the General Goal, Strategy, and Performance Goal

In its 1991 Lake Improvement Plan, TVA made commitments to the user public to maintain tributary lakes at specified levels during June and July to support recreation uses which have significant economic development impacts for the Tennessee Valley. TVA campgrounds at Land Between The Lakes, reservoirs, and recreation areas are valued by outdoor recreation enthusiasts. These performance goals measure TVA's effectiveness in meeting the identified expectations of these user communities.

Achievement of this objective requires that TVA retain the responsibility for integrated river operation and for the Federal lands associated with the reservoir system and that resources are available to maintain and operate these facilities.

PERFORMANCE GOAL: Summer Lake Level Attainment (W&L)

TVA General Goal: Operate the Tennessee River system to minimize flood damage, maintain navigation, generate electricity, provide acceptable water quality, protect public health, and support recreation uses.

TVA Strategy: Support recreation uses of the river system and associated Federal lands.

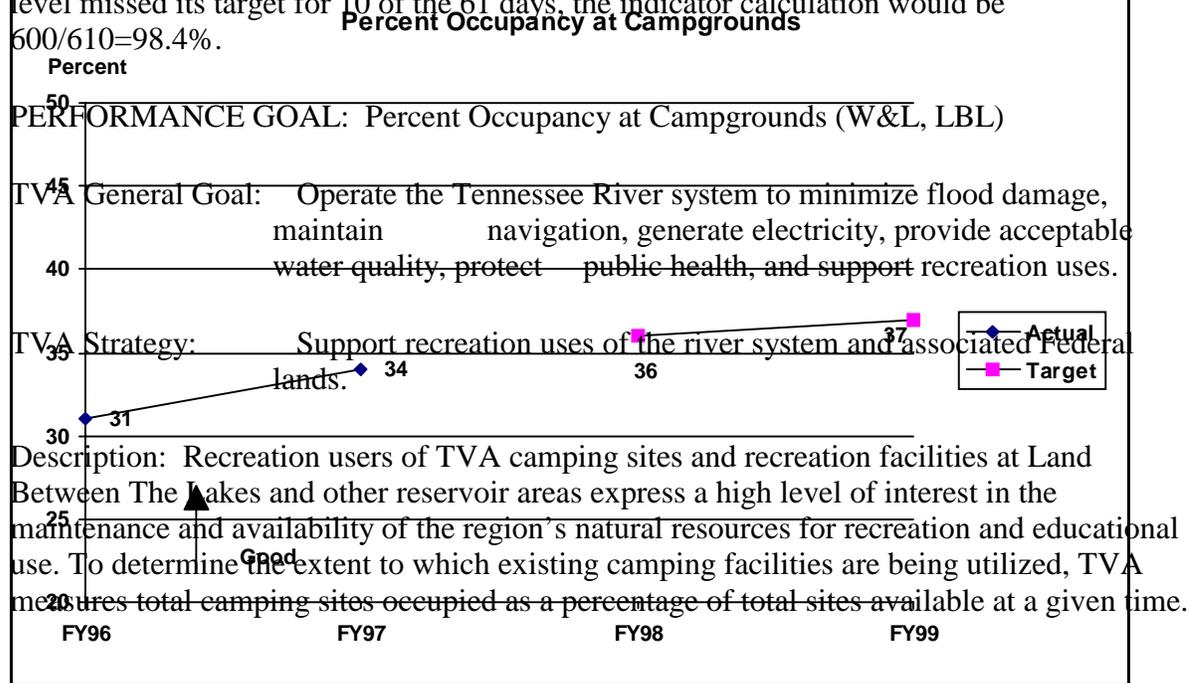
Description: Recreation lake users want TVA to maintain high water levels during the

summer. These customers provide regional economic benefits through increased expenditures for recreation activities. In its 1991 Lake Improvement Plan, TVA made commitments to the user public to maintain tributary lakes at specified levels during June and July to support recreation uses which have significant economic impacts for the Tennessee Valley. TVA measures its commitment to these customers by monitoring achievement of targeted minimum water levels during June and July in ten tributary storage reservoirs.

FY 99 Target: 100%

Target Explanation: This new performance goal measures achievements in meeting commitments made in the Lake Improvement Plan and shows an aggressive target.

Measurement and Validation: Lake levels for 10 tributary storage projects are measured at midnight from June 1 to July 31 and checked against August 1 levels specified in the Lake Improvement Plan. There is the potential of maintaining summer lake levels for 61 days at each of the 10 reservoirs (610 days total) per the Lake Improvement Plan. If one reservoir's level missed its target for 10 of the 61 days, the indicator calculation would be $600/610=98.4\%$.



FY 99 Target: 37 percent occupancy.

Target Explanation: Target set based on past history and planned activities expected to increase visitation to TVA recreation areas.

Measurement and Validation: TVA divides the number of paid camping unit nights by the total number of camping sites available (calculated by multiplying campground capacity by

the number of nights the campgrounds are open). Data are reported monthly and are accumulated throughout the year to report the annual performance.

Goal 4 - Maintain the value of Federal assets entrusted to TVA while supporting their wise use by and for the public in support of TVA's mission.

- *Strategy 4. B. Support public uses of Federal assets under TVA management that are consistent with statutory responsibilities while protecting the value of those assets for the future.*

Performance Goal: Reservoirs with Completed Comprehensive Reservoir Land Plans

Relationship between the General Goal, Strategy, and Performance Goal

TVA manages 176,044 hectares (435,000 acres) of land around reservoir projects spanning seven States. The reservoir system is a nationally important recreation and tourism resource that attracts 110 million visitors per year, who enjoy water-based sports and contribute to a \$1 billion industry. Waterfront properties are highly valued and generate demands for growth that often conflict with the protection of public resources and wildlife habitat. TVA manages these potential conflicts with the use of comprehensive reservoir land plans that establish allowable uses for TVA property.

Achievement of this objective requires that TVA retain the human and financial resources to develop comprehensive reservoir land plans, establish and monitor land use agreements and maintain and operate recreation facilities.

PERFORMANCE GOAL: Reservoirs With Completed Comprehensive Reservoir Land Plans (W&L)

TVA General Goal: Maintain the value of Federal assets entrusted to TVA while supporting their wise use by and for the public in support of TVA's mission.

TVA Strategy: Support public uses of Federal assets under TVA management that are consistent with statutory responsibilities while protecting the value of those assets for the future.

Description: TVA manages 435,000 acres of land around reservoir projects spanning seven States. The reservoir system is a nationally important recreation and tourism resource that attracts 110 million visits per year from residents and tourists who enjoy water-based sports and contribute to a \$1 billion industry. Waterfront properties are highly valued and generate demands for growth that often conflict with the protection of public resources and wildlife habitat. TVA manages these potential conflicts with the use of land management plans that establish allowable uses for TVA property.

FY 99 Target: 3 (Cumulative)

Target Explanation: TVA will complete three comprehensive reservoir land plans in FY 98 and begin work on three additional reservoir plans in FY 99.

Measurement and Validation: TVA will report each comprehensive reservoir land plan completed when it is published and made available to the public.

COORDINATION OF CROSS-CUTTING FUNCTIONS

TVA carries out a number of resource management functions in the Tennessee Valley that are the responsibility of other agencies in other parts of the country. These functions include:

- Federal land management
- Flood control
- Navigation
- Recreation
- Water quality
- Regulated waterway shoreline construction permitting (Section 26a)
- Management of cultural and natural resources

All of TVA's programs are coordinated as necessary to ensure that efforts are complementary and that duplication of effort is minimized. Examples of coordination mechanisms are described below.

TVA conducts activities to monitor and protect threatened and endangered species and maintains critical databases in coordination with the FWS.

TVA conducts site evaluation studies on TVA lands in cooperation with State agencies and in accordance with requirements of the National Archaeological Resources Protection Act and the National Historic Preservation Act, and then obtains concurrence by State Historic Preservation Officers as needed.

TVA has discussions with FS Ranger Districts concerning land located on reservoir projects on an as-needed basis.

TVA coordinates with State wildlife resources agencies on the development of annual wildlife resource plans covering TVA lands under license to the States.

E. U.S. Department of the Interior, Fish and Wildlife Service Strategic Plan provides one goal and two measures.

Strategic Goal 3.2: By 2002, opportunities for participation in uses of fish and wildlife resources will increase by 3% from the 1996 levels.

The FWS provides opportunities for use of fish and wildlife resources through all of its efforts to conserve, protect, and enhance trust species and provides mitigation from Federal water projects (i.e., Federally-managed man-made lakes and reservoirs). However, the significant responsibility for providing opportunities for use of fish and wildlife resources lies with the States, Tribes, and other Federal agencies and private organizations. The Service proposes to measure increases in “opportunities for use” through an index of measures that directly or indirectly, reflect the potential for public participation in wildlife dependent recreation. This index is defined as the average of the combined percentage increases in hunting, fishing, and other uses defined by: participation as measure by the National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.

Strategic Performance Measure 3.2.1. -- The Service, with other responsible parties, will establish a baseline for recreation fishery mitigation objectives associated with Federal water resource projects and improve performance from that baseline by 5%.

Strategic Performance Measure 3.2.2. -- Increase opportunities for the American public to participate in compatible fish and wildlife dependent recreation activities on Service lands, consistent with approved management plans, by 10% from 1996 levels.

F. U.S. Department of the Interior, Bureau of Land Management has created four goals to address the provision of opportunities for environmentally responsible recreation. The complete section from the BLM Strategic Plan is listed below.

1: Provide opportunities for environmentally responsible recreation

The public lands provide visitors with a wide array of recreation opportunities. These include hunting, fishing, camping, hiking, boating, operating off-highway vehicles, mountain biking, birding, and visiting natural and cultural heritage sites. The BLM will continue to provide these opportunities where they are compatible with other authorized land uses, while minimizing risks to public health and safety and maintaining the health and diversity of the land.

The BLM administers 205,000 miles of fishable streams, 2.2 million acres of lakes and reservoirs, more than 6,600 miles of floatable rivers, more than 500 boating access points, over 60 National Back Country Byways, and 300 Watchable Wildlife sites. The public lands provide habitat for more than 3,000 species of mammals, birds, reptiles, and fish. Big game animals, including elk, pronghorn, mountain sheep, caribou, deer, and moose, live on western public lands, as do waterfowl and many species of small game animals. The BLM also manages nearly 5,000 miles of National Scenic, Historic, and Recreation Trails, in addition to thousands of miles of multiple use trails that are available for motorcyclists, hikers, equestrians, and mountain bikers.

Challenges and Opportunities

Studies show that over 90% of the U.S. population participates in some form of outdoor recreation. These studies also indicate that the demand for recreation will continue to

increase as the U.S. population grows. Visitation to BLM lands has grown from 51 million visits in 1994 to 59 million in 1996.

This increase in recreation affects many western communities. It is a source of employment and economic growth. At the same time, it also places new demands on local governments for services. The BLM must take recreation's impacts into account, helping local communities understand and anticipate such economic and social impacts.

The BLM has also seen an increase in the number of people with disabilities and people over the age of 55 who use the public lands for outdoor recreation activities. This increase is due to our aging population as well as advances in technology for adapted recreation equipment. To meet these new demands, the BLM must incorporate the concept of universal access into all of its recreation programs and facilities.

The growth in recreation is not always the result of population increases. Many new types of recreation, such as mountain biking and caving, are becoming popular on the public lands. The BLM wants to understand the expectations and needs of new users, so that it can better manage all recreation opportunities.

While the demand for recreation on public lands continues to increase, funding has not kept pace with the rising costs of managing recreation sites and providing services that the public expects. As a result, some routine and corrective maintenance needs are not being met, BLM recreation employees are not always present on the ground, and visitor services are lacking.

Growing recreation use has other consequences. Environmental health in some areas is declining because of overuse. The very resources that attract visitors may be in jeopardy. The BLM recognizes that sustainable, quality outdoor recreation opportunities depend on healthy land and water resources. The Bureau provides users with information on how to minimize impacts to the land. In some cases, the BLM also controls the type and location of physical access to recreation lands.

Well-designed, universally accessible facilities, combined with sound management techniques, can stabilize and restore natural values, increase safety, and improve the recreation experience. This sometimes poses a dilemma to management: facilities require long-term maintenance and are an added expense. They also represent a break with BLM's traditional recreation niche providing a primitive and dispersed experience consistent with the wide-open landscapes the BLM manages. Additionally, the BLM should complement, not compete with, other Federal, State, tribal, regional, local government, and private entities that also supply recreation opportunities.

The BLM pursues challenge cost-share partnerships and grants to strengthen its relationship with users and local communities. Through these partnerships, work accomplished at specific recreation sites is aimed at reducing risks to public health and safety, decreasing environmental degradation, improving the quality of the resources, and delivering land use ethic messages to the public.

The BLM is working with the public to better understand and protect resources through interpretation, environmental education, permit stipulations, and environmental stewardship efforts. Visitors are asked to use and enjoy the public lands while minimizing environmental impact by incorporating the Leave No Trace and Tread Lightly principles. Well-informed, environmentally sensitive recreation users can play a key role in protecting cultural, natural, and scenic resources and sustaining the health of the Nation's public lands.

BLM's public lands are noted for the undeveloped, wild nature of their recreation opportunities. The BLM manages each local area according to its own unique attributes. Through partnerships and collaborative efforts, the BLM is striving to provide a diversity of opportunities and to ensure their availability to all segments of the public. Each local BLM office is identifying its recreation niche in cooperation with other community recreation, travel, and tourism providers and partners.

Performance Goals

- *Understand and assess the role that recreation, travel, and tourism play in supporting economic growth and social well-being.* By 2000, develop a methodology to help understand and quantify the economic impacts of outdoor recreation on local communities. Use the resulting information to direct future outdoor recreation management, opportunities, facilities, and activities on public lands and to assure that BLM's actions consider local communities' economic, social, and development goals.
- *Manage outdoor recreation activities to achieve and maintain public land health standards.* By 2001, encourage outdoor recreation users to be better stewards, advocates, and volunteers for protecting and enhancing BLM public lands and waters by using multimedia environmental education and interpretative information. By 2002, reduce the environmental degradation at public land recreation sites and facilities.
- *Provide outdoor recreation opportunities that are within the BLM's local and regional recreation niche, considering the availability of other providers.* By 1999, ensure that each BLM field office has identified and documented its recreation niche and is working with the local community to provide appropriate recreation opportunities on public lands and waters.
- *Provide easy access to outdoor recreation information for the public lands.* By 2001, cooperate with other Federal agencies to develop an electronic access system for recreation use permits, reservations, and other information.

G. U.S. Department of the Interior, Bureau of Reclamation has two objectives in its Strategic Plan that address the protection of the water and the protection of the environment. The goals of these objectives involve the rehabilitation and promotion of recreation resources.

Mission Objective I: MANAGE, DEVELOP, AND PROTECT WATER AND RELATED RESOURCES

This objective covers all aspects of Reclamation's water and related resources management and development activities.

Strategy 3 -- Facilities Maintenance and Rehabilitation. Maintain and rehabilitate Reclamation facilities in a manner that preserves sound infrastructure in order to ensure public health and safety, reliability of service, and cost-effective protection of the Federal investment.

Outcome Goal: Ensure project benefits to future generations through effective maintenance and rehabilitation.

Five-Year Strategic Goals:

- By 2002, rehabilitate 50% of the recreation facilities that need to be improved to meet public health, safety, and accessibility standards.

Mission Objective II: PROTECT THE ENVIRONMENT

Strategy 11 -- Fish and Wildlife. Develop and manage Reclamation projects to conserve and, as appropriate, to enhance fish and wildlife habitat and populations.

Five-Year Strategic Goals:

- By 2002, make meaningful contributions to achieve the strategies identified in the Presidentially ordered Recreational Fishery Resources Conservation Plan. They are to improve fish habitat; improve fishing access and facilities; increase awareness of aquatic education; and increase partnerships to improve recreation fisheries.

Strategy 12 -- Enhance Recreation Opportunities. Effectively and efficiently manage Federally-owned Reclamation project land and project water surface areas to enhance recreation and cultural uses in partnership with others and consistent with authorized project purposed.

Outcome Goal: To promote recreation use benefits at Reclamation projects.

Reclamation provides recreation opportunities on Reclamation project lands and waters. Reclamation will support and enhance public recreation on Reclamation lands and water surface areas in an environmentally compatible manner through partnerships with State and local governments, the private sector, and other Federal agencies. Reclamation will manage recreation areas to provide improved recreation facilities where there is a need, while

protecting the public health and safety, providing for accessibility, and collecting appropriate user fees.

Reclamation will provide oversight and support to facilitate proper management and utilization of lands and water surface areas for recreation purposes. Reclamation will undertake those activities necessary to ensure compliance and administration of laws, regulations, contracts, and agreements for the management of recreation facilities and for the protection of land and water resources.

Five-Year Strategic Goals:

- Contribute to the Nation's economic and social well-being by providing travel, tourism and recreation opportunities on the public lands. Working with others, by 2001 develop methodology to measure the economic impacts of recreation tourism on project lands. By 2002, annually report current recreation and tourism-based economic contributions.

Strategy 13 -- Federal Land Interests. Effectively and efficiently manage Federally-owned Reclamation project lands and project water surface areas to improve, protect, and enhance land use, and cultural, recreation, and environmental values, in partnership with others and consistent with other project purposes.

Outcome Goal: Land capable of sustaining a healthy ecosystem and authorized uses.

Five-Year Strategic Goals:

- Develop, adopt and implement Reclamation policy, and directives and standards that will guide the planning, development, and management of land use activities to provide services and facilities for public use. The developed facilities will be the result of a planning process that considers the protection of environmental resources, encourages sound business practices, and provides for a public involvement process.
- By 2002, complete Resource Management Plans of those identified as high priority.
- By 2002, complete all of the Land Resource Management Manuals.
- Determine the land areas of greatest concern. By 2005, identify areas with resources at risk, those that appear to be in declining condition, and those subject to intense conflicts among uses.
- Conduct assessment on high priority areas. By 2005, complete assessments in high priority areas (e.g. riparian zones, abandoned mine lands, grazing allotments, etc.).

Appendix II

Forest Service's Meaningful Measures Process & Corps of Engineers' Natural Resources Management Branch Performance Measures

This appendix covers the two other agency programs that address the measurement of recreation. The FS program supports and is part of the agency's strategic plan and the COE Natural Resources Management Branch Performance Measures are not part of the agencies strategic plan.

I. USDA/FS Meaningful measures program (MMP) is used to create the baseline data for the GPRA measurement. Due to the fact that it is the only program that any of the Study agencies have to establish a documented baseline, a full discussion of the program is included in this paper.

A. The FS Meaningful Measures program was implemented as a recreation management process to better guide recreation management activities at the project and site level. It was to provide not only better accountability but also higher quality recreation opportunities and better protection of the natural resources on which the opportunities depend. MMP has a six step process:

1. Identify measurable components which are the major categories of the recreation program. Individual units within each component are inventoried in INFRASTRUCTURE.
2. Establish standards of quality for each component developed from visitor input, policy, plans, and legal requirements.
3. Determine and level direct costs by determining the annual direct costs to manage each component "to standard" then compare and adjust costs (level) between units.
4. Prioritize work to be accomplished. Among the items to be considered when setting priorities the Forest Service will be using Forest Plan priorities, laws, use, risk of liability, impacts to the ecosystem, efficiency, economy of scale, and known visitor preferences.
5. Develop budget and allocate program of work negotiated by the Forest Supervisor and the District Ranger and agreed to by both. The Recreation program of work will have three levels: a) To standard, b) Not to standard, c) Not accomplished.
6. Monitor, measure and report actual management attainments for the year by using visitor feedback and program reviews in validating quality standards and priorities. Accomplishments are to be reported as "To standard" or "Not to standard."

MMP was purposefully developed to be integrated into the other recreation management systems used by the FS. These systems address all amenity uses of the National Forest and Grasslands, whether they are recreation uses, uses to realize spiritual experiences or to experience a special place or to enjoy scenery. Each of these FS recreation management systems were developed to assure the efficient, effective, and responsive provision of a wide

spectrum of high quality and accessible outdoor recreation opportunities and related amenities. The other FS management systems include:

Scenery Management System, which was developed to protect and maintain visual scenic resources;

Benefits-Based Management which focuses on how both provision and use of recreation opportunities and related amenities positively impact the users, local communities and the physical environment;

Recreation Opportunity Spectrum, which helps management identify the spectrum of recreation opportunities that should be provided where, when, and for whom;

Limits of Acceptable Change process, which is being applied widely to help prevent undesirable changes; and

Infrastructure, a corporate data system, which helps assure efficient accounting and reporting .

Each of these systems share the same overriding managerial philosophy that “total quality management” of amenity resources should sustain naturally-defined ecosystems, while delivering an array of high quality recreation opportunities and related amenity services in a cost-effective and responsive manner. As a necessary part of this overall managerial framework, MMP provides explicit and specific direction for achieving quality recreation management at the area, project, and site levels. The other systems listed above establish the bounds within which the MMP process operates. While some of these systems have applicability to the task of measuring specific parts of the enhanced recreation experience (i.e., scenic management, recreation opportunities) they are FS specific and would have to be greatly modified to be used by all 6 other agencies. In sum, the MMP process of the FS will create a set of baseline data by which they can judge their success (or failure) in meeting the goals set forth in their GPRA strategic plan. No other agency in the Study has gone to this length to create a set of baseline data.

II. Corps of Engineers’ Natural Resource Management Branch

Of the seven land managing agencies of the Study, the Natural Resources Management Branch is the only one that does not have any measurable standards in the parent agency’s (U.S. Army Corps of Engineers) GPRA standards for this year. To assess the Branch’s performance, four standards have been established. Two of them address environmental - natural resources which address mitigation and listed species plans. The other two directly address recreation opportunities and function similar to the agency standards for other participating agencies.

A. Recreation Performance Measure I.

PROGRAM GOAL: To provide outdoor recreation opportunities in an effective and efficient manner.

CORPORATE GOAL: 20 percent

MEASURE: Percent Cost of Recreation Program Recovered

DEFINITION: Revenues generated by the Corps recreation programs divided by the costs of providing those programs. Revenues include commercial concession receipts, user fee receipts, and quasi-recreation receipts. Costs include WCCs 605xx and 615xx, public and the recreation allocation of 606xx and 616xx, where applicable.

DEMONSTRATES: Corps effectiveness of implementation of the user fee program.

DATA SOURCE:

B. Recreation Performance Measure II.

PROGRAM GOAL: To provide continued outdoor recreation opportunities to meet the needs of present and future generations.

CORPORATE GOAL: 90 percent of customers rating facilities and services as acceptable or better for the price.

MEASURE: Customer satisfaction with quality of facilities and services.

DEMONSTRATES: Corps effectiveness in providing quality recreation facilities and services to meet the customer needs.

DATA SOURCE: Customer Satisfaction Survey.



THE NATIONAL RECREATION LAKES STUDY



Dear Stakeholder:

Public Law 104-333, the Omnibus Parks and Public Land Management Act of 1996, created a nine-member Presidentially appointed commission to conduct a National Recreation Lakes Study. The Commission has been established to develop alternatives to enhance recreation use at the nearly 1800 federal man-made lakes, while ensuring the conservation of environmental values associated with these lakes.

The attached Technical Report #1 prepared by Dr. Glenn E. Haas, a professor at Colorado State University, has been accepted by the staff as a technical product. Its purpose is to provide the Commission with background information for its discussion and deliberation. The technical report has under gone careful peer and stakeholder review.

Now that the report has been accepted as a background document, the Staff is interested in making the technical report available to a broad range of stakeholders. The Staff is very interested to learn your reaction to the issues and ideas raised in the technical report. We want written comments that focus on the report's ideas and concepts that are most important to you or your organization.

As this report will be discussed at the next Commission meeting, November 9-10, 1998, at Lake Lanier, Georgia, we are requesting that any written comments be received in our office no later than October 16, 1998. We appreciate your time and efforts in support of the work of the Commission.

Sincerely,

Jana Prewitt
Executive Director

attachment

REPORT

The Impacts from Increased Recreation Use on the Non-Recreational Purposes and Benefits of Federally Managed Man-made Lakes/Reservoirs

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August 1, 1998

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Introduction

On November 12, 1996, the Omnibus Parks and Public Land Management Act (P.L. 104-333) created the National Recreation Lakes Study Commission. The purpose of the Commission is to “review the current and anticipated demand for recreational opportunities at federally-managed man-made lakes and reservoirs” and “to develop alternatives for enhanced recreational use of such facilities.” The Commission, utilizing existing data and literature to the extent possible, will report to the President and the U.S. Congress.

The Commission was created in response to numerous conservation, recreation, and tourism organizations in America who recognized the growing need for water-based recreation opportunities and the need for the protection and conservation of the Nation’s water resources. Yet, the Nation’s some 1,800 federally man-made lakes and reservoirs serve multiple purposes associated with flood control, hydropower, irrigation, navigation, and municipal and industrial water use, fish and wildlife, and water quality. This monograph, being prepared for the National Recreation Lakes Study Commission, attempts to advance the conceptual understanding of the impact of increased recreation use on the non-recreational purposes and benefits of federally managed man-made lakes/reservoirs.

Description of Project

Objective

The objective of this project is to address the following question:

What are the impacts from increased recreation use on the non-recreational purposes and benefits of federally managed man-made lakes and reservoirs?

The primary output of this project is a conceptual model depicting the relationship of increased recreation use with the traditional non-recreational purposes and benefits of man-made lakes/reservoirs: hydropower, navigation, irrigation, flood control, municipal and industrial use, water quality, and fish and wildlife.

Methodology

The project commenced in November, 1997, utilizing a multi-method approach. First, a review of published literature was conducted via computer-based literature retrieval systems and through telephone contacts with water resource experts to assess what was known about this topic. This review resulted in an annotated bibliography of directly relevant published literature.

Second, a 2-day expert panel worksession involving fifteen professionals and academicians convened to review the annotated bibliography and discuss the conceptual relationship between increased recreation use and the non-recreational purposes and benefits of federally managed man-made lakes/reservoirs. The workshop attendees were selected for their experience with recreation and the other non-recreation purposes and benefits of federal

lakes and reservoirs, their geographic and institutional representation, and ability to problem-solve in small group worksessions. Attendees were present from the Corps of Engineers, Tennessee Valley Authority, Bureau of Reclamation, National Park Service, Colorado State Parks, academia, and the private sector. Subsequent to the workshop, a draft monograph was prepared by the principal investigators of this project.

In the third and final step, the Social Science Program in the National Park Service, in support of the National Recreation Lakes Study Commission, conducted a 30-day technical review of the draft monograph. A review panel of 48 technical and stakeholder reviewers were selected with expertise in the fields of recreation, fish and wildlife, irrigation, flood control, municipal and industrial water use, water quality, hydropower and navigation. In addition, the reviewers represented various professional backgrounds in biology, zoology, sociology, economics, hydrology, engineering, planning and public policy. Forty reviewers provided critique which was used to develop the final report.

Project Assumptions and Limitations

The conclusions in this report are based on several very important assumptions and limitations.

- a. the project conclusions are based on the three methodological steps and the expert opinions of the investigators;
- b. the conceptual model is intended to be a generalization of the national situation, and may not be reflective for a particular region or specific reservoir project. A ten-year time frame was used, with 1998 serving as the base year;
- c. the “non-recreational purposes and benefits” includes hydropower, irrigation, flood control, navigation, municipal and industrial, water quality, and fish and wildlife. For brevity and clarity in this report, the phrase “non-recreational purposes” is subsequently used;
- d. the sample of “federally managed man-made lakes/reservoirs” considered in this project are those of 1000 acres or larger, most of which are managed by the COE, BOR, and TVA. It is assumed that the reservoirs have the available capacity (social, physical and biological) for increased recreation use. For brevity and clarity in this report, the phrase “federal reservoirs” is subsequently used;
- e. “increased recreation use” is defined as small (e.g. 10%), moderate (e.g. 25%), and large (e.g. 50%) increases in recreation visits to federal reservoirs of 1000 acres or more. These levels of increased recreation use were judged to be “plateaus” near which there would be a change in the value of the non-recreational purposes from federal reservoirs. The Commission staff and Workshop attendees concurred with the use of these levels. These specific increases are not suggestive of any projected future demand or trend in recreation participation. The project did not focus on specific recreation activities nor attempt to forecast recreation demand or trends;

f. “impact” means change to or an increase or reduction in social-economic value. Social-economic value is an inclusive concept representing economic growth, ecological integrity, and quality of life.. In other words, increased recreation use at federal reservoirs has the potential impact of increasing or reducing economic growth, ecological integrity, and quality of life. Impacts are further conjectured in Figure 1 as “small,” “medium,” and “large” to reflect a sense of magnitude for comparison purposes.

Literature Synthesis

This section of the report is the result of the first stage or literature review of the project. It is structured by overall general findings followed by subsections with more specific points about each of the project’s dependent variables: hydropower, flood control, navigation, municipal and industrial uses, irrigation, water quality, and fish and wildlife. The authors indicate their lead published source(s) within parens after each finding. Time did not permit a review of internal agency reports, planning documents, environmental assessments, and other “gray” literature.

An extensive computer-based literature review was conducted to assimilate published articles, books, and other published documents that identified the impacts from increased recreation use on the non-recreational purposes of federal reservoirs. Keywords used in the search included recreation, boating, fishing, hydropower, flood control, navigation, irrigation, agriculture, municipal water, water resources, water quality, fish and wildlife. Additionally, a direct request for literature was made to the National Recreation Lakes Commission staff, federal land agencies, and to the Colorado Water Institute.

General Findings

1. The literature is inconclusive about what are the impacts from increased recreation use on the non-recreational purposes of federal reservoirs. A 1996 journal article reported:

While various Congressional acts emphasize the importance of managing reservoir systems to increase their total economic value, several barriers have made this difficult to accomplish. One barrier is the lack of reliable economic information on system gains or losses produced by altered storage and release patterns. Even less information is available on how recreation values change with changes in reservoir levels. (31)

2. The historic pattern of reservoir drawdown does reduce the suitability and capacity of water-based recreation participation. Lakes/reservoirs fill during winter through spring and begin drawdown in late spring and early summer (May/June). This pattern reduces the suitability in late summer and early fall (August/October) of such activities as boating, sailing, water skiing, swimming, fishing, and waterfowl hunting. (8, 5, 31)

3. Maintaining higher water levels longer into summer season can increase recreation visitation and recreation economic values. (11, 17, 8, 31, 5)

4. Recreation use levels and recreation satisfaction can be modestly increased on lakes/reservoirs without long-term or significant changes to flood, navigation, and hydropower objectives by a proactive public information program indicating available surface area, drawdown heights, release schedule and quantity, fishing and boating conditions, access and mooring sites, etc. (5)
5. There is a level of increase in the type or amount of recreation use after which reductions or losses to the outputs associated with the other non-recreational purposes and benefits occurs. Relatedly, it is accepted that the increase in social-economic value attributed to increased recreation may or may not compensate for the change in the social economic value attributed to the non-recreational purposes and benefits. (11, 8)
6. The economic efficient management of water resources will require an understanding of the cumulative and interactive effects of multiple reservoir purposes and benefits, particularly on a large scale (i.e. systemwide, regionwide, basinwide) or even nationwide perspective. (22, 8, 27, 26, 28, 31)
7. There is a belief that with increasing dialogue among water users, with a broader societal perspective among decision-makers, and with more flexible and creative lake/reservoir operations, “major improvements can be accomplished without abandoning” (LaGassa 1991) any water resource purpose or benefit. That is, there can be a net social-economic gain through innovative and collaborative reservoir operations which accommodate increased recreation use in concert with the traditional reservoir purposes and benefits. (16, 28, 27, 5)
8. Public agencies, water user groups, private industry and the research community vary in how they measure economic efficiency and social-economic values associated with alternative reservoir management scenarios (e.g. what variables to include, assumptions to be made, how to measure values and opportunity cost, what is geographic area of influence). (11)
9. Given the author’s overall synthesis of reviewed literature, it is concluded that the essence of the relationship between increased recreation use and change to non-recreational purposes and benefits revolves around water drawdown, regardless of the purpose for that drawdown (e.g. hydropower, irrigation, municipal use). It is viewed most often as a change in water surface acres which then is related to a boats/per acreage standard (e.g. 8-10 acres per boat). (22)

There is a range of acceptable water levels. The water level can be too high affecting recreational fishing, shoreline erosion, turbidity, facility submersion, habitat loss, beach loss, increased public safety concerns, decreased visitation, and thus lost recreation value.

The water level can be too low whereby recreational access is not possible, fisheries habitat decline, wildlife displaced, shoreline aesthetics become offensive, backwater areas and side channels become shallow to a point of boating congestion and safety concerns, increased conflicts among boater types and between boaters and other recreationists, congestion increases in main channel and at the reduced number of access points, visitation declines,

and thus lost recreation value. At some point in the water drawdown process, the level of recreation satisfaction declines and the recreationists are displaced to other “substitute” areas or to other recreation or non-recreation activities.

Thus, the recreation values may be reduced (or increased) for the visitors, for the specific reservoir, or for the larger region. The reductions (or increases) in recreation value may be compensated for by the increases (or reductions) in the values from the non-recreational purposes and benefits. The cumulative net gain or loss is of consequence to the American public.

Impacts of Increased Recreation Use on Hydropower

1. There is a point or level of increased recreation use that will result in the reduction of hydropower peaking capacities, total output generated, or both. (6, 9)
2. Water drawdown effects will vary regionally. For example, Glen Canyon Dam water release reductions will affect peaking capability and not so much total hydropower generation, whereas the reverse is the case on the Columbia River. (6)
3. Hydropower demand for summer air conditioning directly coincides with high demand water-based recreation season. Demand for power generation by businesses and industries is greater during weekdays while demand for water-based recreational opportunities is greater on weekends (particularly relevant for downstream recreation). (5)
4. Increased reservoir-based recreation will at some point compete with “downstream” recreation and minimum in-stream flows. This interaction affect will be important to consider in reservoir management. (6, 7, 9, 19, 17)
5. The Cordell and Bergstrom (1993) research project compared recreation values among alternative reservoir levels and comes closest to the research question at hand in this project. They found significant recreation economic values from holding the water in the reservoirs for 1, 2 and 3 months longer into the summer. Upon examining the recreation gain and power loss in combination, they concluded there may be “either net gains or losses, depending on what is assumed to be an appropriate accounting position with respect to the opportunity costs of power production.” (8)
6. The demand for power can change quickly in a short period of time. Hydropower generation is planned and managed within a large system of projects and reservoirs. It is possible to compensate for one hydropower project’s “loss” or inability to respond with the transfer of power from another facility to its customer’s service area. There are real costs associated such transfer and the ability to respond will vary with circumstance. (5)

Impacts of Increased Recreation Use on Municipal and Industrial Purposes

No additional information was found beyond that presented in general findings section.

Impacts of Increased Recreation Use on Flood Control

1. Flood control water storage and release can affect recreation directly and indirectly. Holding water to avoid flood damage downstream provides recreational opportunities and recreational value, particularly in the summer months. Water release late in summer and early fall to accommodate the next winter and spring season, may have same implications as presented in the preceding general findings and hydropower subsections. (5)
2. Flood control may affect recreation indirectly through high waters and the associated disturbance on fish and wildlife habitat, disturbance of nesting sites and feeding patterns, shoreline erosion, turbidity, sediment, and subsequent dredging. (33)

Impacts of Increased Recreation Use on Irrigation

1. Irrigation is the single largest water consumer in the United States. These rights are owned by individuals or farming cooperatives and can be sold (e.g. to municipalities) or leased (e.g. by Colorado State Parks). (14)
2. Recreational fishing and irrigation competes on 67 of the 99 major river basins in the United States. The marginal value of water for recreational fishing exceeds the marginal value of water for irrigation in 52 of the 67 river basins. (14)
3. Irrigation water is managed through a system of reservoirs which can move water from place to place as demands arises. (14)
4. There is increasing interest in protecting agricultural lands in and around urban areas of the West as urban open space and parklands. The addition of recreation values to agricultural lands (i.e. fee hunting), irrigation ditches, and reservoirs is helping to justify protective farmland easements and other land and water conservation techniques.

Impacts of Increased Recreation Use on Navigation

1. Recreational boating and commercial traffic is not seen as a conflict except in several incidences involving highly congested locations of waterway locks, holiday weekends, and with some larger recreational touring boats. (1)
2. Commercial traffic utilizes main channels, while recreational boaters tend to utilize the main channel border, side channels, backwaters areas, and shoreline. (24)

3. Large increases in recreational boating, particularly novice boaters, may increase accidents involving commercial traffic. (1)
4. Large increases in recreational boating may slow traffic on main channels and locks, although commercial traffic operates 24 hours per day and can time lock throughs via radio communication. Loss of time would be a real cost. (1)

Impacts of Increased Recreation Use on Fish and Wildlife

1. The literature about the relationship between recreation and fish and wildlife is very substantial, with several compilations available. (22,33) While there is consensus that humans do affect fish and wildlife, the type and amount of positive and negative changes, and the associated benefits and costs are localized and speculative. The impact of increased recreation use on fish and wildlife at federal reservoirs is inconclusive.
2. Recreation, in its many forms and amounts, may affect fish and wildlife both positively and negatively. For example, recreation may disrupt nesting and feeding areas, alter flight patterns, cause mortality, increase unnatural energy consumption, displace species temporarily or permanently, destroy aquatic vegetation, have both visual and auditory affects, increase unnatural wildlife dependency (e.g. human feeding), increase pollution from boat motors and human litter and waste, cause shoreline erosion and habitat loss, increase water turbulence and turbidity, decrease aquatic growth, decrease fishery populations directly from fishing recreation and indirectly through other human behaviors.

Conversely, the intensive fish and wildlife management associated with federal reservoirs and the “protected and conserved” land use status associated with public recreation areas can be a boom for fisheries, waterfowl, terrestrial wildlife such as deer, and numerous non-game species. (22, 33), and thus public use and enjoyment. The intensive management at such areas can enhance the environmental quality for fish and wildlife, as well as improve the aesthetics and recreational enjoyment. Increased recreation use at federal reservoirs, coupled with intensive fish stocking often associated with reservoir management, could have long term implications for the popularity and support for sport fishing programs in the United States.

3. Recreational boating (perhaps most central to this project) may affect fish and wildlife: wildlife seems more disturbed by faster, louder, and larger boats; increased recreational boating will increase wildlife encounters and associated affects; increased recreational hunting and fishing may decrease populations; increased recreational boating may lead to increased boating in side channels where biodiversity is highest and which are the breeding, nesting and feeding areas for many species; increased number of boats may increase wave action and shoreline contact which in turn may increase erosion, turbidity and subsequently reduce aquatic production and fisheries. Conversely, increased recreation boating may increase public contact and appreciation of fish and wildlife. Other research suggested increased boating will increase aeration, distribute point-source pollution, and thus improve fish and wildlife habitat. (33, 22)

4. Fish and wildlife-related recreation opportunities, including wildlife viewing and nature study, are a primary reason for the popularity of public parks and protected areas (including waters) in the United States. The type and amount of recreation visitation can be directly influenced by the nature and quality of the fish and wildlife resource. This influence can be immediate and significant, such as that which is witnessed during annual waterfowl migration, catching of record size fish, identification of rare birding species, and for water and fishery releases. (33)
5. While aquatic vegetation is a positive attribute for fishing, it is a negative attribute to many other water-based recreationists participating in boat touring, water skiing, swimming, sailing, snorkeling and diving, and canoeing. Aquatic vegetation is also attributed to damaging boat propellers through entanglements and also with insect infestations. (3, 22)
6. Changing water levels can decrease aquatic vegetation and thus affect fisheries. (22)
7. Visitor management and educational programs can mitigate negative affects that recreationists have on wildlife and fisheries. Management tools such as zoning, limits, capacities, closures, information, education, enforcement, signage, fees and charges, and facility infrastructure are available to mitigate negative affects. (33, 22)

Impacts of Increased Recreation Use on Water Quality

1. Recreation boating can affect water quality by unconsumed or spilled fuel and oil, engine exhausts, wakes, prop wash causing resuspension of sediments, human waste and litter, and surface runoff from associated parking areas, marinas, and boats ramps. (21, 32, 24)
2. Affects of recreational boating, if any, will be localized at such areas as marinas, boat ramps, popular shorelines, and locks. These affects can decrease aquatic vegetation growth while increasing off-taste in fish, offensive odors, resuspended hydrocarbons, and turbidity. Conversely, boat motors have been found to improve water quality by oxygenating water and diluting point source contaminants. (24, 32, 21)
3. Increased recreational boating will likely increase boat use in channel edges and side channels. This will put more boats closer to the shorelines. More boats may increase the amount, duration and constancy of wave action on the shoreline, thus increasing erosion and subsequent shoreline habitat loss, turbidity, and reduction of aquatics and fisheries. (24)
4. Recreational boating is not viewed as a major problem to water quality beyond localized situations. It is also believed that a good management program can mitigate most water quality affects that might be caused. Particular management attention should be paid to shallow waters, water areas with little wave action or currents, locations with high volume motor boat access, and locations with high quality fisheries. (24)

Worksession Summary

This section of the report is the result of the 2-day expert worksession or the second stage of the project. On February 18-19, 1998, 15 experts convened to consider the conceptual relationship of increased recreation use on the non-recreational purposes and benefits of federally managed man-made lakes/reservoirs. The following are findings of the worksession.

1. Maximizing social-economic value to the American public from federally managed man-made lakes/reservoirs will require a comprehensive and integrated systems-approach to their management. The maximization of social-economic value will require that recreation use be given “equal consideration” with the other reservoir purposes and benefits.

One dilemma towards a multi-purpose systems approach has been the measurement of recreation economic benefits. The U.S. Water Resources Council endorses the use of willingness-to-pay approach to measuring recreation economic benefits. This approach provides a common metric for benefit/cost analyses and water storage and release allocation decisions.

2. Major increases in public demand (50--100%) for recreation opportunities at state and federally managed reservoir projects will occur in the next 20 years. This will be a function of the “baby boomer” generation, younger retirees seeking a more healthy and active lifestyle, population growth, new recreation technology, and increased public information (marketing) about recreation opportunities from private concessionaires and rural communities to stimulate tourism and economic development.

This increase in public demand will not be met given the current infrastructure, management programs, or without compromising the safety and enjoyment of the visiting public or without compromising the integrity of natural resources at federal reservoirs.

3. The essence of the relationship between recreation and the other non-recreational purposes and benefits is one of water storage and release.

4. A systems-approach (similar to hydropower and flood control) for reservoir recreation management is necessary to assure A.) a diversity of quality outdoor recreation experiences; B.) coordinated and efficient inter-agency management; C.) compatible recreation management objectives including science-based biological, physical, and social capacities; D.) effective public information about available recreation facilities, programs, and changes in reservoir operations; and E.) for monitoring of recreation demand, supply, and trends.

5. The American public is becoming accustomed to “recreation user fee” systems and are very supportive when they know the monies are returned to help manage the area or facility at which the money was collected. Such recreation user fees for public recreation areas are prevalent among county and state park and recreation agencies, and are currently under “demonstration” by federal land agencies.

6. Recreation user fees could be collected and retained (at least in part) at reservoir projects and used to help support the overall project operations, without an offsetting reduction in agency appropriations for investment and interest costs. These monies could be leveraged and used a cost-sharing with local and state governments and with the private sector in order to meet increased recreation demand and to protect the resources. Continued Congressional oversight would be important for monitoring the implementation and success of such new and creative financing arrangements.

7. Increasing recreation use may increase the perception of “entitlement” by some recreationists, concessionaires, local communities, and other stakeholders. It is vital that these people understand that management of water resources is a very is a dynamic and uncertain process, and that reservoir management must always respond to situations of public health and safety (e.g. flood control, drought) and natural resource protection (e.g. water quality, T&E species). It is also vital that these stakeholders understand that there are recreation capacities or limits, and that sustainable reservoir management will require a comprehensive master plan with clearly articulated management objectives, standards, activities, priorities, and accountability.

8. Several major issues were acknowledged without answer. What will be the impact of the deregulation of the electric utility industry and how might revenues be used? If there are markets for power, irrigation and municipal water, how can recreation water become part of this entrepreneurial market? If a reservoir were to be “designated” as part of a national lake system, what changes would there be in the type and amount of recreation visitation and how would it affect natural resources and local economies? What would be the selection criteria for a reservoir to be included in a national recreation lake system?

9. Small increases in recreation use (e.g. 10%) can be accommodated within the available and existing reservoir infrastructure without any change to current water storage and release patterns. Such an increase is expected even without increases in recreation budgets or facilities, and would have no appreciable impact on the other non-recreational purposes. This increase in recreation value with no decline to the other non-recreational purposes would result in a net gain of social-economic value to the American public.

10. Modest increases in recreation use (e.g. 25%) can be accommodated within the available and existing reservoir infrastructure and authorization, but would require some operational changes to water storage and public communications. This increase in use can be accommodated by a combination of a) increasing recreation participation to off-peak weekdays and seasons via public information programs, b) by reservoir managers taking a more basin-wide, systems-approach to water storage and release operations, and c) by giving recreation demand equal and timely consideration. This increase in recreation value, compensating for slight reductions to the non-recreational value, would result in a sizeable net gain of social-economic value to the American public.

11. Large increases in recreation use (50%+) cannot be accommodated with the current

facility infrastructure, level and type of recreation management, financial policies, cooperative partnerships, cost-sharing arrangements, private sector involvement, and lack of statutory parity for recreational purposes.

Conversely, assuming a statutory change or executive order, an innovative financing and cooperative management program could be established for a system of recreational lakes/reservoirs whereby there would be a very significant increase in the net gain of social-economic value to the American public.

Conceptual Model

Figure 1 represents the author's conceptual understanding of the project's research question:

What are the impacts from increased recreation use on the non-recreational purposes and benefits of federally managed man-made lakes and reservoirs?

Figure 1 answers this question with a series of pluses and minuses to reflect the hypothesized increase or reduction in "social-economic value" associated with small, moderate and large increases in recreation use at federal reservoirs. Social-economic value is used in this project as an inclusive concept relating to economic growth, ecological integrity, and quality of life.

This conceptual model evolved in the course of this project based upon the author's professional expertise, project assumptions and limitations, review of literature, workshop discussions, and the external review process. The authors encourage the reader to review the project assumptions and limitations to fully understand Figure 1. As with any conceptual model, empirical research is necessary and recommended to develop a more robust quantitative model of this relationship for application at a national, regional, and reservoir level.

Column A lists the three levels of increased recreation use to federal reservoirs selected for this project. Column B indicates the increase or reduction in social-economic value associated with recreation use for each of the three levels of increased recreation visitation. Column C reflects the increase or reduction in the social-economic value associated with the non-recreation purposes as a result of the three levels of increased recreation use. Column D indicates the "net" change in social-economic value accruing to the American public from the large federal reservoirs considered in this project. This column reflects the cumulative change in social-economic value associated with increased recreation use (Column B) and change to the non-recreational purposes and benefits (Column C).

Figure 1. Conceptual relationship between increased recreation use on the non-recreation purpose and benefits of federally managed man-made lakes/reservoirs (see accompanying narrative explanation)

A Level of increased recreation use	B Social-economic change from increased recreation use (1,2)	C Social-economic change to non-recreation purpose from increased recreation use	D (Column B minus column C) Net social-economic change from increased recreational use
Small increase (e.g. 10%)	+	O	+
moderate increase (e.g. 25%)	++	-	-
large increase given current reservoir policies (e.g. 50%)	++	---	--
large increase given current reservoir policies (e.g. 50%)	+++	-	++

(1) change is identified as followed: “o” = no change, “-“ = medium reduction, “— “ = high reduction, “+” = small increase, “+ +” = medium increase, and “+ + +” = high increase.

(2) social-economic change is an inclusive concept relating to economic growth, ecological integrity, and quality of life.

(3) non-recreational purposes and benefits include: flood control, navigation, agriculture, municipal and industrial, hydropower, water quality, and fish and wildlife.

The first row indicates that with a small (e.g. 10%) increase in recreation use to federal reservoirs, there would be a “small” increase in social-economic value associated with this increased use, “no change” to the social-economic value associated with the non-recreational purposes, and thus a “small” net increase in the social-economic value accruing to the American public.

The second row indicates that with a moderate (e.g. 25%) increase in recreation use to federal reservoirs, there would be a “medium” increase in the social-economic value associated with this increased use, “small” reduction in social-economic value associated with the non-recreation purposes, and thus a “small” net increase in social-economic value accruing to the American public.

The third row indicates that with a large (e.g. 50%) increase in recreation use to federal reservoirs, there would be a “medium” increase in the social-economic value associated with this increased use, “high” reduction in the social-economic value associated with the non-

recreation purposes, and thus a “medium” net reduction in the social-economic value accruing to the American public.

This third row indicates a net reduction in value based on current federal reservoir policies, procedures, partnerships, fee programs, fiscal practices, recreation-related infrastructure capacity and suitability, and the type and level of recreation management. It would be too costly of an alternative in terms of water reallocation costs, natural resource degradation, public safety and enjoyment, and for effective cost-sharing and other cooperative partnerships involving local and state governments and the private sector.

The fourth row was included in recognition that a net increase in social-economic value may be achievable with changes in reservoir policies and management. The fourth row assumes such policy changes and indicates that with a large (e.g. 50%) increase in recreation use to federal reservoirs, there would be a “high” increase in the social-economic value associated with this increased recreation use, “small” reduction in the social-economic value associated with the non-recreation purposes, and thus a “medium” net increase in the social-economic value accruing to the American public.

Summary

The objective of this project was to develop a conceptual model to advance the understanding of increased recreation use on the non-recreational purposes and benefits of federally managed man-made lakes/reservoirs. The authors draw several conclusions based upon their review of published literature, a 2-day expert worksession, and a 40-person technical review process.

1. there will be a major increase (i.e. 50%+) in public demand for reservoir-based recreation opportunities within the next 20 years, much of which will not be accommodated for given the current recreation infrastructure, management programs, and reservoir operational policies and procedures;
2. reservoir-based recreation participation has measurable social-economic value to local communities, states, private industry, and to specific reservoir projects and basins;
3. increasing recreation use at large federal reservoirs is principally an issue pertaining to the operational aspects of water storage and release (i.e. timing, pattern, amount);
4. the social-economic impact of increasing recreation use can vary from adding to the current level of social-economic value of the federal reservoirs to the American public, to compensating for reduced value associated with one of the other non-recreational purposes while still achieving a net social-economic gain, to causing a net reduction in the social-economic value to the American public;
5. small (e.g. 10%) and moderate (e.g. 25%) levels of increased recreation use can be accommodated with existing recreation infrastructure and through reservoir operational changes involving a broadened multi-purpose, systems approach to water storage and release. It is believed that collaborative and innovative reservoir management, coupled with equal

consideration for public recreation demand, will result in a substantial net gain in the social-economic value to the American public;

6. large levels (e.g. 50%) of increased recreation use will result in a significant net reduction of social-economic value to the American public given current recreation infrastructure, level and type of recreation management, financial policies, cooperative partnerships, cost-sharing arrangements, private sector involvement, and lack of statutory parity for recreational purposes;

7. large levels (e.g. 50%) of increased recreation use could result in a significant net gain in the social-economic value to the American public if those issues described in the preceding item (6) were addressed;

8. there are social, physical, and biological capacities to the number of recreation visitors under any management program. These capacities must be established within an integrated and comprehensive reservoir management systems plan and managed within prescription.

Bibliography

In order to prepare a state of the knowledge report which identifies the impacts from increased recreation use on the non-recreation purposes and benefits of federally managed man-made lakes and reservoirs, the following references have been identified. Identification resulted from an extensive electronic database search which utilized the FirstSearch databases of government publications, books, journals, and conference proceedings. The following key words were used: man-made lakes, federal lakes, Army Corps of Engineers lakes, Army Corps of Engineers reservoirs, Army Corps of Engineers recreation, Bureau of Reclamation lakes, Bureau of Reclamation reservoirs, Bureau of Reclamation recreation, Tennessee Valley Authority lakes, Tennessee Valley Authority reservoirs, Tennessee Valley Authority recreation, boating, water sports, canoeing, cultural resources, recreational impacts, recreation impacts, wildlife impacts, water recreation, lake recreation, water conflicts, hydropower conflicts, hydropower impacts, hydropower recreation, reservoir impacts, reservoir recreation, flood control, instream flows, water quality, lake impacts.

The following is an annotated bibliography of those references which most directly address aspects of the research question.

1. Badger, Daniel D. (1990). Analysis of recreational boating impact on navigation lock performance. Ft. Belvoir, VA: U.S. Army Corps of Engineers, Water Resources Support Center, Institute for Water Resources, Navigation Division.

This study provides information about several aspects of boating conflicts between recreational boaters and commercial tow boat operators on the Illinois River and on the Upper Mississippi River. Commercial tow boat operators and most recreational boat operators feel that the time delays waiting to lock through are a natural phenomenon and they adjust to them.

2. Bergmann-Baker, U.; Brotton, J.; Wall, G. (1995). Socio-economic impacts of fluctuating water levels on recreational boating in the Great Lakes. Canadian Water Resources Journal, Vol. 20, No. 3.

Many different groups use the Great Lakes basin and connecting channels, and have different preferences for water levels. Recreational boating is an important activity in the basin and boating facilities, being located on the shoreline, rely on adequate water depths. The present paper is a summary of a study done for the International Joint Commission's reference on fluctuating water levels, and is focused on the effects of water level fluctuations on recreational boating in the Canadian portion of the Great Lakes.

3. Bergstrom, John C.; Cordell, H. Ken. (1993). Aquatic Plant Coverage and Outdoor Recreation at Lake Guntersville Alabama: A Study of User Preferences. Economic Values and Economic Impacts. Tennessee Valley Authority, Land Resources Division, U.S. Army Corps of Engineers, Waterways Experiment Station.

In the absence of control efforts, with favorable growing conditions, nonnative aquatic plant coverage can rapidly expand in a reservoir. Large amounts of non-native aquatic plant

coverage can have both negative and positive effects on reservoir uses and services. Negative effects include clogging water intake pipes, restricting commercial navigation, restricting access to boat docks and boat launching areas, promoting mosquito production, and interfering with certain recreational/leisure experiences. Positive effects of aquatic plants include provision of food, cover, and oxygen for waterfowl, fish, and other wildlife species, and enhancement of certain recreation/leisure experiences. This study focused on examining relationships between non-native aquatic plant management and reservoir-based recreation at Lake Guntersville, Alabama.

4. Brookshire, D. S.; Neill, H. R. (1992). Benefit transfers: conceptual and empirical issues. Water Resources Research WRERAQ Vol. 28, No. 3, pp. 651-655.

The focus of this article is the conceptual and empirical issues regarding benefit transfer applications. A benefit transfer is the application of monetary values obtained from a particular nonmarket goods analysis to an alternative or secondary policy decision setting. The ongoing development of the procedures for benefit transfers are addressed through a case study approach.

5. Burton, D. T. (1995). Managing the TVA reservoir system for recreation benefits. Waterpower Conference Proceedings, Vol. 2.

In 1991, the TVA's Lake Improvement Plan elevated certain recreation concerns to equal importance as original TVA mandates of flood control, navigation and hydropower. Providing recreational opportunities from the Tennessee Valley Authority's water resources while balancing the reservoir system to benefit all users has become increasingly challenging.

6. Buttorff, Leslie; Roluti, Michael; Barbour, Edmund. Hydropeaking versus recreation and environment: the power economic impacts of Glen Canyon trade-off.

There is growing national concern over the effect of fluctuating flows below major federal dams where there is competition between existing hydropower economic values and potential recreation and related environmental economic values. This paper reports on the results of comprehensive power system studies being conducted by the Power Resources Committee (PRC) led by the Bureau of Reclamation. The economic studies were designed to identify (1) the effect from the utility viewpoint, (2) the effects from a federal national resource viewpoint, and (3) the impacts on customer rates and power revenues needed for federal project repayment.

7. Colby, B.G. (1990). Enhancing instream flow benefits in an era of water marketing. Water Resources Research WRERAQ Vol. 26, No. 6, pp. 1113-1120.

This article examines current instream flow policies in the western states and outlines economic values generated by stream flows. The author argues that instream values are high enough to compete in the market for water rights with offstream uses when important recreation sites and wildlife species are involved. The paper suggests how western state policies might be altered to accommodate instream flow protection within the context of water marketing, with the objective of improving the efficiency of water allocation among

instream and consumptive uses.

8. Cordell, H. Ken; Bergstrom, John C. (1993). Comparison of recreation use values among alternative reservoir water level management scenarios. *Water Resources Research*, Vol. 29, No. 2, pp. 247-258.

In this study the gain in aggregate economic use value under three alternative water level management scenarios was measured for four reservoirs in western North Carolina as part of an interagency policy analysis. Use values were estimated using a contingent valuation survey and expert panel data. The basic question addressed by this study was whether the value recreational users place on higher water levels held longer into the summer and fall is significantly greater than using these reservoirs as they were managed at the time of this study. Maintaining higher water levels for longer periods during the summer and fall was found to result in considerable gains in estimated recreational benefits. While not a primary objective of the study, having these estimates provided an opportunity to compare increased recreational benefits with the value the Tennessee Valley Authority estimated for the reduced production of electricity that would result if the lakes were managed to hold reservoir levels higher, longer into the year.

9. DiGennaro, B.; Kessler, J. (1995). Hydropower generation and whitewater recreation: finding the common ground. *Waterpower Conference Proceedings*, Vol. 2.

Many hydropower projects are located (or are proposed for location) along rivers that either support or have the potential to support whitewater recreation. The issue of balancing hydropower operations with non-power benefits such as whitewater recreation, has become more prevalent in the last few years due to the passage of the Electric Consumers Protection Act in 1986, and increased public demand for river-oriented recreation. Balancing potentially competing resource values has created a number of new challenges for the hydropower industry, the regulatory agencies, and the public. This paper concentrates on one aspect of the balancing act balancing power generation with downstream whitewater recreation. It discusses specific issues and challenges and describes several examples where licensees and whitewater enthusiasts have worked together to identify specific needs, discover common ground, and develop sensible approaches to sharing the resource.

10. Douglas, Aaron J.; Harpman, David A. (1995). Recreation and jobs in the Glen Canyon Region. *Waterpower Conference Proceedings*, Vol. 2.

This paper examines the economic implications of water-based recreational activities. The analysis uses a software package and database called IMPLAN to estimate the jobs impacts of expenditures from recreation trips to the Lee's Ferry reach on the Colorado River. The discussion describes the basic input-output model and water-based recreation activities at the Lee's Ferry reach. Non-resident river recreation trip expenditures to the Glen Canyon Dam region generate 585 jobs. The estimates presented add further credence and policy weight to the premise that the outdoor recreation sector of the economy is relatively labor intensive.

11. English, Donald B. K; Bowker, J.M.; Bergstrom, John C.; Cordell, H. Ken. (1995). Estimating the economic impacts of recreation response to resource management alternatives.

Ashville, NC: USDA, Forest Service, Southern Research Station.

Managing forest resources involves tradeoffs and making decisions among resource management alternatives. Some alternatives will lead to changes in the level of recreation visitation and the amount of associated visitor spending. Thus, the alternatives can affect local communities. This paper reports a method that can be used to estimate the economic impacts of such alternatives. Methods for deriving representative final demand vectors and for estimating visitation response to management alternatives are presented. These methods are illustrated in two empirical examples that involve delaying water-level drawdown at mountain reservoirs. One example is for four reservoirs in western North Carolina; the other is for two reservoirs in northern California.

12. Gucinski, Hermann. (1982). Sediment suspension and resuspension from small craft induced turbulence. Annapolis, MD: Cincinnati, OH: U.S. Environmental Protection Agency, Chesapeake Bay Program: Center for Environmental Research Information.

This paper presents a project summary of a study designed to determine if small vessels operating in shallow waters have any measurable effects in producing increased turbidities by the resuspension of fine sediments that may affect submerged aquatic vegetation (SAV). It was found that the resuspension of sediments in the path of a small craft is influenced by water depth, depth of immersion, size of the propeller, the advance ratio and the wave-making tendency of the vessel. The depth to which stirring is sufficient appears to be quite limited in this study. In this study, at depths greater than two meters, reduction in SAV productivity was calculated at about one percent.

13. Hansen, Edward A. (1975). Does canoeing increase streambank erosion? St. Paul, MN: U.S. Department of Agriculture, Forest Service, North Central Forest Experiment Station.

This paper describes research on the Pine River in Michigan to determine if large increase in canoeing accelerated streambank erosion. Most erosion was natural, but people sliding and camping on streambanks created some erosion. Heavy canoe traffic was not a cause of erosion.

14. Hansen, Leroy T. (1990). Water allocation tradeoffs: irrigation and recreation. Washington, DC: U.S. Department of Agriculture, Economic Research Service.

Diverting water from stream for irrigation competes with its use as a recreational fishing resource. This report develops a procedure for estimating the marginal value of water used for fishing that includes the effects of upstream diversions on all points downstream. The downstream effects are dispersed across a wide geographic area and, until now, have not been estimated. The procedure is applied to all 99 major river basins of the contiguous states. The tradeoffs in water allocation are detailed in the 67 river basins where irrigation competes for water with recreational fishing. The results substantiate the role of water for recreational fishing and highlight the implications of a national perspective in water allocation decisions.

15. Josselyn, Michael. (1989). Public Access and wetlands: impacts of recreational use. Tiburon, CA: Romberg Centers, San Francisco State University.

Public access is an integral part of many wetland enhancement projects, especially in urban areas of California. However, little information is available about its impact on wildlife utilization of wetlands. Therefore, a study was initiated to examine the degree of impact from various public activities occurring adjacent to wetlands. This study consisted of three components: a literature survey, a questionnaire to wetland managers, and a field study.

16. Lagassa, George. (1991). Tempest at Glen Canyon: a case study of conflicts involving hydropower. *Independent Energy*, Vol. 21, No. 1, pp. 42-47.

Since the enactment in 1986 of the Electric Consumer Protection Act, enormous quantities of time have been consumed trying to define what the new law meant when it called for a balance between energy and nonenergy interests. Despite the regulatory effort devoted to sorting this out, the meaning of the act and the direction of future licensing and relicensing are still evolving. In this article, the Glen Canyon facility on the Colorado River is highlighted as an example of federal regulatory review, intended, after the fact, to mitigate perceived environmental impacts of a hydroelectric station which has already been in operation for some time.

17. Loomis, John B.; Cooper, J. (1990). Economic benefits of instream flow to fisheries: a case study of California's Feather River. *Rivers*, Vol. 1, No. 1, pp. 23-30.

Performing a benefit cost analysis of changes in instream flow requires knowledge of how the demand function shifts with changes in flow or flow related variables, such as fish catch. This paper presents a simultaneous system of demand and production equations that explicitly incorporate an instream flow variable. With this simultaneous system the effects on recreationists' benefits of a change in instream flow can be directly measured. The Travel Cost Model demand equation includes the level of fish catch as the quality variable, that is, in turn, a function of river flow. The case study modeled this relationship between river flow and fishing trips to the North Fork of California's Feather River.

18. Loomis, John B.; Feldman, M. (1995). An economic approach to giving equal consideration to environmental values in FERC hydropower relicensing. *Rivers*, Vol. 5, No. 2, pp. 9-108.

The economic value of water that flows over a scenic waterfall was measured using the contingent valuation method. Allowing both the value per day and trips to vary with flow resulted in values per cubic feet per second (cfs) of flow ranging from \$1,000 for the first 100 cfs to \$300 for additional flow at 550 cfs. Accounting for the value of forgone hydropower, the economically optimum flow just considering aesthetics of the falls was about 235-240 cfs during the main recreation season. Monthly analysis during the recreation season suggested that optimum flows varied from 165-175 cfs during the early and late recreation season to 500-600 cfs during the four prime recreation months. These flows were three to ten times greater than the current minimum flows. Recommendations are made the Federal Energy Regulatory Commission should use nonmarket valuation techniques such as contingent valuation surveys to ensure that environmental values are given equal consideration with power values in dam licensing and relicensing decisions.

19. Loomis, John B.; Roach, Brian Ward, Frank; Ready, Richard. (1995). Testing transferability of recreation demand models across regions a stud!, of Corps of Engineers reservoirs. Water Resources Research, Vol. 31, No. 3, pp. 721-730.

The research tests the interchangeability of two specifications of travel cost demand models for recreation at U. S. Army Corps of Engineer reservoirs in Arkansas, California, and Tennessee/Kentucky. Statistical tests of coefficient equality for both nonlinear least squares and Hackman sample selection models suggest rejecting a transferable model among all three regions.

20. Midwest Research Institute. (1980). Impacts of lake level regulation on commercial fishing and charter/passenger boat operations -Lakes Erie and Ontario and connecting waterways. Kansas City: Midwest Research Institute.

Fluctuating water levels on Lake Erie have caused extensive damage to private and public facilities during the past 50 years. During an average year, the lake may fluctuate 2 to 4 feet, and over a 30-year period the fluctuation has reached nearly 50 feet. The Corps of Engineers, under the direction of the International Joint Commission, and in cooperation with the Canadian Government, is evaluating the feasibility of partial regulation of Lake Erie to eliminate high water peaks. Midwest Research Institute (MRI) was employed as a consultant by the Buffalo District, Corps of Engineers, to evaluate one part of the entire project - the impacts on recreation boating facilities and beaches.

21. Milliken, Andrew S. (1990). Pollution impacts from recreational boating' a bibliography and summary review. Narragansett, RI: Rhode Island Sea Grant.

Recreational boating has increased tremendously in the last decade. Along with this growth has come the potential for an enormous increase in boating-associated pollutants. It has become essential to understand how pollution from recreational boats affects coastal-zone water quality so that responsible decisions can be made concerning the regulation of recreational boating. This brief literature review and selected bibliography focus on four of the major pollution problems associated with the use of recreational boats: (1) boat sewage, (2) boat engine pollution, (3) antifouling paints, and (4) plastic debris.

22. Mississippi River Marina Cumulative Impacts Task Force. (1990). Cumulative Impacts Analysis of Proposed Recreational Marina Expansions Pools 2, 3 and Upper 4. Mississippi River. U.S. Army Corps of Engineers; Minnesota Department of Natural Resources; Wisconsin Department of Natural Resources; Minnesota-Wisconsin Boundary Area Commission.

Construction and operation for sixteen marinas proposals will promote accelerated growth in recreational watercraft usage and especially promote increased numbers of large craft on the Mississippi and St. Croix Rivers. Increasing recreational boating activity in the study area will raise the density of moving water craft on the water surface (less water surface available per moving craft) and would increase the use of beaches in and near the study area. These impacts, as well as impacts, related to traffic patterns, user conflicts, water safety, displacement of users, and related issues, are described in this paper.

23. Moog, O. (1993). Quantification of daily peak hydropower effects on aquatic fauna and management to minimize environmental impacts. Regulated rivers, Vol. 8, No. 1-2.

The effects of intermittent power generation on the fish fauna and benthic invertebrates of several Austrian rivers have been investigated quantitatively. In contrast to the more or less local adverse effects of impoundments or stream channelization, artificial flow fluctuations generally disturb a long section of a given river. Within all the river sections investigated, a breakdown of the benthic invertebrate biomass of between 75 and 90% was observed within the first few kilometers of river length. A reduction of between 40 and 60% of biomass compared with undisturbed areas could be detected within the following 20-40 km. The reduction of the fish fauna is within the same order of magnitude and correlates well with the amplitude of the flow fluctuations. Several reasons for the breakdown are summarized and proposals for the minimization of these detrimental effects of artificial short-term fluctuations are given.

24. Roy Mann Associates. (1974). Recreational boating impacts: Chesapeake and Chincoteague Bays. Part 1: Boating Capacity Planning System. Cambridge, MA: Roy Mann Associates.

In this report operational and facilities physical and physical-chemical characteristics related to boating activities were identified and classified for use in a boating capacity planning system. These causative factors were then studied relative to big-physical parameters in order to determine the relative impacts of the causative factors.

25. Thacker, C. Michael; Karas, Marie; McDonough, Kenneth E.; Davy, John R. Lownes, Phillip D. (1995). Hydroelectric Project Recreation Partners in River Access Program. Waterpower Conference Proceedings, Vol. 2.

Most often, a license applicant's proposed recreational additions or enhancements are proposals for specific developments on the hydroelectric project's reservoir(s) or tailwater(s), or are stand-alone off site mitigation proposals. By taking an innovative and proactive approach to recreational resource development, Appalachian Power Company and the Virginia Departments of Conservation and Recreation and Game and Inland Fisheries have entered into an agreement for development of 17 public recreation sites that provides for a broader, better managed approach to recreational development than typically evolves from the traditional relicensing process.

26. Thiessen, Ernest M.; Loucks, Daniel P. (1992). Computer assisted negotiation of multi-objective water resources conflicts. Water Resources Bulletin, Vol. 28, No. 1.

Since the early 1970's, a large volume of literature has accumulated related to multiobjective water resources management problems. A relatively small portion of this specifically addresses the negotiation process required when there are multiple decision makers with conflicting objectives. This paper focuses on that process and describes a computer program designed to assist such negotiation processes. The interactive computer assisted negotiation support system is called ICANS. A simple example illustrates the data requirements and the use of ICANS in negotiation experiments.

27. Ungate, Christopher D. (1992). "Equal Consideration" at TVA: Changing System Operations to Meet Societal Needs. Hydro Review.

During the recent focus on hydra relicensing, the U.S. hydra industry has heard a lot about "equal consideration" of the power and non-power uses of FERC-licensed projects. Federal power producers, too, have been addressing how to operate their projects to maximize benefits to society.

28. Ungate, Christopher D. (1996). Resolving Conflicts in Reservoir Operations: Some Lessons Learned at the Tennessee Valley Authority. American Fisheries Society Symposium 16: pp. 23-27.

The public's dependence on water resources for survival increasingly conflicts with its demand for clean bodies of water with scenic views to use for recreation and leisure. Many recent attempts to resolve such conflicts have been marked by frustration and failure. In contrast, the Lake Improvement Plan developed by the long embattled Tennessee Valley Authority (TVA) has succeeded at a relatively low cost, in a comparatively short time. This success can be attributed to three factors: an excellent team of leaders, specialists, and scientists; good timing; and the TVA's broad mandate. This paper describes aspects of the TVA experience that contributed to the success of its plan, emphasizing the need for institutions with a broad, multipurpose mandate, leaders with the authority to make necessary decisions, and a public that has been included in the decision-making process.

29. U.S. Army Corps of Engineers. (1985). Libby Dam-Koocanusa Project Kootenai River, Montana: a preliminary investigation of recreation fisheries and cultural resources and impacts on these resources if the reservoir is drafted deeper. Seattle, WA: US. Army Corps of Engineers, Seattle District.

This report presents the results of a preliminary investigation of environmental and social constraints on hydroelectric power operations of the Libby Dam-Lake Koocanusa Project, Kootenai, Montana. The investigation was conducted by the Seattle District, U.S. Army Corps of Engineers, in response to a recent proposal by a number of utilities in the Northwest Power Pool for a change in reservoir operation of federal storage projects, including Libby Dam. The purpose of the proposal is to see if firm hydroelectric power production of the Northwest Power System can be increased by allowing deeper drafting of federal reservoirs, including Lake Koocanusa. Impacts of the proposal on Libby project recreation, fisheries, and cultural resources were evaluated, including impact of the proposal on the area economy.

30. Ward, Frank A. (1982). The Demand for and Value of Recreational Use of Water in Southeastern New Mexico. (Research Report 465) Las Cruces, NM: Agricultural Experiment Station, New Mexico State University.

The economic value of water-based recreation in Chaves, Lea, and Eddy counties, New Mexico, was estimated from a survey made in 1979 of a sample of households in those three counties. The survey was focused on Recreation at Lake Avalon, Bottomless Lakes State Park, Lake Carlsbad Recreation Area, and Lake McMillan. The economic value of the recreational use of the water resource was defined as the savings in travel costs accruing to

visitors who lived near the site, relative to the costs paid by those who traveled greater distances to visit the site.

31. Ward, Frank A.; Roach, Brian A.; Henderson, Jim E. (1996). The economic value of water in recreation: Evidence from the California drought. (Paper 96WR00076). *Water Resources Journal*, Vol. 32, No. 4.

A significant barrier to economically efficient management of most reservoir systems is lack of reliable information about how recreational values change with reservoir levels. This paper presents evidence on marginal values of water for recreation at Corps of Engineers reservoirs in the Sacramento, California District. Data on visitors were collected by origin and destination before and during the early part of the 1985-1991 California drought. Because lake levels varied widely during the sample period, water's effect on visits was isolated from price and other effects. An estimated travel cost model containing water level as a visit predictor provided information to compute marginal values of water in recreation.

32. Wisconsin Department of Natural Resources. (1996). Impacts of motor boats on water quality in Wisconsin Lakes: a final report to the Bureau of Water Resources Management Lake Management Section. Monona, WI: Wisconsin Department of Natural Resources, Bureau of Research, Water Resources Section.

The effects of motor boats on sediment resuspension and concurrent effects on nutrient regeneration and algal stimulation were investigated in the summer of 1994. There were three components to the study: a lab study designed to investigate the potential of littoral sediments to promote algal growth, a study of the changes in water quality on 10 lakes during holiday weekends with high boating activity, and a volunteer monitoring survey of 20 lakes documenting motor boat activity and changes in water clarity on summer weekends.

33. York, Darryl. (1994). Recreational-boating disturbances of natural communities and wildlife: an annotated bibliography. Washington, DC: U.S. Department of the Interior, National Biological Survey.

The increase in water-based recreation since 1972 created a serious computability issue for wildlife refuges. Land managers are challenged with integrating acceptable levels of recreational boating with the intended purpose of the refuge system. As conflicts between boating and resource protection escalate, there will be an increasing need for information on waterfowl flush and flight distances, zoning and buffer recommendations, and the disturbance reaction by different taxonomic groups. This bibliography contains 111 annotations on a wide variety of boating disturbances. The citations are useful references for land managers who must determine acceptable levels of water-based recreation.

The following section of references are those which address aspects of the research question, but less directly than the previous selection of references.

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11. Creel, Michael; Loomis, John. (1992). Recreation value of water to wetlands in the San Joaquin Valley: Linked multinomial login and count data trip frequency models. Water Resources Research, Vol. 28, No.10.
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Task 17

Tribal Involvement in The National Recreation Lakes Study

Indian tribes are sovereign nations within the United States and govern their reservation lands through their elected tribal chairmen and tribal councils. As self-governing entities, the tribes manage their natural resources and decide whether or not to open their lands and resources to public use for a fee. Tribal lands are not considered “public lands” rather they are “trust lands” with title held by the Federal Government.

The Commission staff has identified 1,782 federally-managed man-made lakes and reservoirs with surface areas greater than 10 acres. Of these, 152 are managed by the Bureau of Indian Affairs (Attachment 1). We have identified a number of tribes with recreational interests in Federal man-made lakes and reservoirs (Attachment 2).

Many tribes are actively involved in recreation now and would be interested in developing their recreation facilities if funds could be found. Here are five examples of tribal involvement in recreation and recreation lakes:

1. The Chemehuevi Tribe owns 23 miles of shoreline along the Colorado River and Lake Havasu in southeastern California. The tribe owns a campground on the lake and rents houseboats, along with a small store which also sells fishing tackle and licenses.
2. The San Carlos Apache Tribe in southeast Arizona operates a marina on San Carlos Lake and campgrounds around the lake along and a small store that provides fishing tackle, licenses, and guides.
3. The Confederated Salish & Kootenai Tribes of the Flathead Indian Reservation (northwest Montana) operate the KwaTaq Nuk Resort and Marina on the south shore of Flathead Lake. Recreation opportunities include ski boats, canoes, fishing, sailboats, windsurfing, pontoon boats, and personal water craft. The tribe has an excellent natural resources staff and is a leader in trying to preserve the endangered bull trout.
4. The Mescalero Apache Tribe in southeastern New Mexico operates the Inn Of The Mountain Gods Resort on Mescalero Lake which features fishing, sailing, canoeing, and paddleboats. A golf course, tennis courts, horse and jogging trails, and casino are also part of the resort.
5. The Confederated Colville Tribes in northeastern Washington operate campgrounds along with marine rentals (houseboats, ski boats, and fishing boats) on Lake Roosevelt.

Tribes will become more involved with the Recreation Lakes Study if they see a direct benefit to their tribe. Many tribes would like to further develop their recreation facilities on both the Federal man-made lakes and on the natural lakes on tribal lands. The usual roadblock is a lack of funds to develop the facility and access to it. If sources of funds could be identified for uses by tribal governments, for instance, that would be a benefit to the tribes. Currently, tribes are not eligible to receive some of the funds available to other government entities. For example, funds from the Dingell-Johnson Funds, Pittman-Robertson Funds and Aquatic

Resources Trust Fund (Wallop-Breaux) administered by the U.S. Fish and Wildlife Service. These funds are generated from excise taxes on hunting, sport fishing and boating equipment and totaled approximately \$443 million in Fiscal Year 1998. Funds are apportioned to States based primarily on land areas and public use levels. Indian land areas are included in a State's land base. U.S. Territories and the District of Columbia are allocated fixed percentages of the overall funds. these funds even though tribal members pay the same taxes on this equipment as does the general public.

If a percentage of these, or other, funds became available to tribes, the Bureau of Indian Affairs could establish a ranking process to evaluate and rank the many fish, wildlife, and recreation proposals received from tribes to ensure that adherence to the authorizing statutes providing the funds.

Attachment 1

BIA MANAGED RESERVOIRS (152 TOTAL FROM FEMA LIST)

STATE	RESERVATION	LAKE / DAM NAME(S) / NUMBERS	MAIN PURPOSE
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MT (27)	Flathead	Hell Roaring Reservoir (Big Creek) / MT01463	Hydroelectric
	Rocky Boys	Agency Reservoir / MT82901	Irrigation
	Rocky Boys	Beaver Creek Reservoir (East Fork) / MT01335	Flood Control
	Rocky Boys	Bonneau Reservoir / MT01054	Irrigation
	Flathead	Turtle Lake (Twin Lake) / MT00597	Irrigation
	Flathead	Lower Jocko Lake (Jocko) / MT00602	Recreation
	Flathead	Upper Dry Fork Reservoir / MT00600	Irrigation
	Flathead	Saint Mary's Lake (Tabor) / MT00588	Irrigation
	Flathead	Mission Lake or Reservoir (Mission) / MT00589	Irrigation
	Flathead	Lower Crow Reservoir (Crow) / MT	Irrigation
	Flathead	Lower Dry Fork Reservoir / MT00601	Irrigation
	Fort Belknap	Lake Seventeen Dam / MT00310	Irrigation
	Flathead	Hubbert Reservoir / MT00599	Irrigation
	Flathead	Kicking Horse Reservoir / MT00594	Irrigation
	Crow	Lodge Grass Reservoir (Willow Creek) / MT00963	Irrigation
	Blackfeet	Lower Two Medicine Lake / MT00573	Irrigation
	Flathead	Ninepipe Reservoir / MT00591	Irrigation
	Flathead	Pablo Reservoir / MT00592	Irrigation
	Flathead	Little Bitterroot Lake / MT00598	Irrigation
	Blackfeet?	Green Lake Dam / MT00516	Recreation
	Flathead	Upper Jocko Lake (Black Lake Dam) / MT00587	Irrigation
	Flathead	McDonald Lake Reservoir (McDonald) / MT00590	Irrigation
	Flathead	Horte Dam / MT00595	Irrigation
	Flathead	Hillside Lake Dam / MT00596	Irrigation
	Fort Belknap	Little Porcupine (Weiglands Dam) / MT00603	Irrigation
	Fort Peck	Fraser Lake Dam East / MT03155	Irrigation
	Rocky Boys	Williamson Dam / MT82913	Flood Control
ND (2)	Turtle Mountain	Little Shelf (Belcourt Lake Dam) / ND82901	Recreation
	Standing Rock	Sitting Bull (Prairie #1 Dam) / ND82902	Recreation
NM (42)	-	Pin Dee Dam / NM82932	Irrigation
	Laguna	Paguate Reservoir 1 (Paguate North Dam) / NM82905	Irrigation
	Laguna		Irrigation
	Navajo/Zuni?	Paguate Reservoir 2 (Paguate South Dam) / NM82906	Recreation
	-		Irrigation
	-	Eustace Reservoir / NM00149	Irrigation
	Navajo	Seama Reservoir / NM82923	Recreation
	Jicarilla	Bolton Reservoir / NM82929	Recreation
	Jicarilla	Asaayi Reservoir / NM00285	Irrigation
	Zuni/Isleta?	Lower Mundo Reservoir / NM00190	Irrigation
	Jicarilla	Dulce Lake Dam / NM00186	Recreation
	Navajo	Nutria #4 Dam / NM00143	Irrigation
Navajo?	La Jara Lake / NM00188	Recreation	
	Cutter Reservoir / NM00121		

NM (Con'd)	Zia?	Zia Storage Reservoir / NM00159	Irrigation
	Mescalero?	Silver Springs Dam / NM00160	Flood Control
	Mescalero	Cienegita Reservoir (Lake Mescalero) / NM00161	Recreation
	Mescalero?	Pine Tree Canyon 1 Dam / NM00162	Other
	Mescalero?	Pine Tree Canyon 2 Dam / NM00163	Other
	Mescalero?	Pine Tree Canyon 6 Dam / NM00164	Other
	Mescalero?	Pine Tree Canyon 7 Dam / NM00165	Other
	Mescalero?	Nogal Dam #2 / NM00166	Other
	Mescalero?	Cooley Canyon #2 Dam / NM00168	Other
	Mescalero?	Whitetail Dam #5 / NM00169	Other
	Mescalero	Whitetail Dam #6 / NM00170	Other
	Jicarilla?	Hayden Lake Dam / NM00187	Recreation
	Jicarilla?	John Mills Lake Dam / NM00191	Irrigation
	Jicarilla?	Enbom Lake Dam / NM00192	Recreation
	Jicarilla	Stone Lake Dam / NM00244	Recreation
	Navajo?	Juans Vicente Lake Dam / NM00330	Irrigation
	Navajo/Zuni?	Pressley Jacobs Dam / NM00384	Flood Control
	Navajo/Zuni?	Whiskey Lake T20N Dam / NM00391	Flood Control
	Zuni	Trapped Rock Dam / NM82930	Flood Control
-	Oak Wash Dam / NM82931	Flood Control	
NV (4)	Walker River	Weber Reservoir / NV10132	Irrigation
	Duck Valley	Wild Horse Reservoir / NV10119	Irrigation
	Goshute	Goshute Dam / NV10128	Irrigation
	Duck Valley	Sheep Creek Dam / NV10135	Water Supply
NY (5)	Near Buffalo	Iroquois Wildlife Refuge #5 Dam / NY00370	Other
	“	Long Marsh Dam / NY00380	Other
	“	Iroquois Nat Refuge #3 / NY00381	Other
	“	Iroquois Nat Refuge #6 / NY00372	Other
	“	Iroquois Nat Refuge #7 / NY00379	Other
OK (1)	-	Jones Lake Dam / OK21080	Recreation
OR (2)	Warm Springs	Happy Canyon (Happy Valley Dam) / NY00694	Irrigation
	Umatilla	Indian Lake Dam / NY00601	Recreation
SD (15)	Rosebud	Rosebud Lake / SD82904	Recreation
	Rosebud	Indian Scout Lake / SD82902	Recreation
	Rosebud	Ghost Hawk Lake / SD82901	Recreation
	Pine Ridge	Wanblee Lake / SD02128	Recreation
	Pine Ridge?	Wolf Creek Lake / SD00967	Water Supply
	Rosebud	Ring Thunder Dam / SD82903	Recreation
	Pine Ridge	Allen Reservoir / SD00981	Recreation

UT (5)	Uintah & Ouray Uintah & Ouray Uintah & Ouray? Uintah & Ouray? Uintah & Ouray?	Lake Boreham (Midview Dam) / UT10126 Bottle Hollow Reservoir (N Bot Holl Dam) / UT10130 Cedarview Dam / UT10150 Towave Dam / UT10151 Weaver Dam / UT10152	Irrigation Recreation Recreation Recreation Recreation
WA (2)	Colville Colville	Owhi Lake / WA00278 Twin Lakes / WA00277	Irrigation Irrigation
WI (1)	Menominee?	Lake Gen Laws Dam / WI00346	Recreation
WY (2)	Wind River Wind River	Washakie Reservoir / WY01398 Ray Lake Reservoir / WY01399	Irrigation Irrigation
<hr/> 152		<p>Note: Preliminary review draft - February 1998. Subject to change.</p>	

Attachment 2

TRIBES WITH RECREATIONAL INTERESTS IN FEDERAL RESERVOIRS

(February 1998)

ABERDEEN AREA

Cheyenne River, SD Borders Lake Oahe; tribal OR program on small impoundments

Crow Creek, SD *

Borders Lake Sharpe; tribal OR program on reservation

Fort Berthold, ND

Large tribal OR program on Lake Sakakawea

Lower Brule, SD

Borders Lake Sharpe; tribal OR program on reservation

Pine Ridge, SD * Tribal OR program including several small impoundments

Rosebud, SD *

Tribal OR program including several small impoundments

Santee Sioux, NE

Reservation borders Lewis & Clark Lake (Missouri River)

Sisseton-Wahpeton, SD

Tribal OR program involving reservation waters (impoundments?)

Standing Rock, SD&ND *

Borders Lake Oahe; tribal OR program on small impoundments

Turtle Mountain, ND *

Tribal OR program including several small impoundments

Yankton Sioux, SD

Reservation borders Lake Francis Case (Missouri River)

ALBUQUERQUE AREA

Acoma, NM *

Tribe conducted OR program involving Acomita Lake (dry?)

Cochiti, NM

Reservation borders the popular Cochiti Lake OR area

Isleta, NM

Tribe manages Isleta Lakes Recreation Area near Albuquerque

Jemez, NM

Tribal OR program involving several small impoundments

Jicarilla, NM *

Diverse tribal OR program including several impoundments

Mescalero, NM *

Excellent tribal OR program on Lake Mescalero and other waters

Nambe, NM

Tribe operates OR program on Nambe Falls Reservoir

Santa Clara, NM

Tribe operates OR program on a few small impoundments

Southern Ute, CO *

Borders Navajo Reservoir; tribe manages Capote Lake for OR

Ute Mountain, CO * Reservation contains small impoundments with OR potentials
 Zuni, NM * Tribal OR program involving several small impoundments

BILLINGS AREA

Blackfeet, MT *

Excellent tribal OR program involving popular impoundments

Crow, MT *

Assists in managing OR in the Bighorn National Recreation Area

Fort Belknap, MT

Tribes manages Strike, Snake Butte and other lakes for OR

Fort Peck, MT *

Borders Missouri River below Ft. Peck Dam; operates OR program

Rocky Boy's, MT *

Tribe manages Bonneau Lake and other waters for OR

Wind River, WY *

Excellent tribal OR program involving Bull Lake and other waters

EASTERN AREA

Penobscot, ME

Tribe manages excellent OR program (Lakes or reservoirs?)

Seneca, NY

Do some tribal lands border or contain popular OR reservoirs?

MINNEAPOLIS AREA

Leech Lake, MN

Tribe manages excellent OR program involving several lakes

Menominee, WI *

Sport fishing opportunities available on many reservation lakes

MUSKOGEE AREA

Choctaw, OK

Tribe operates a resort & OR facilities on the popular Lake Eufaula

NAVAJO AREA

Navajo, AZ *

Borders Lake Powell; outstanding tribal OR / tourism program

PHOENIX AREA

Chemehuevi, AZ

Tribe manages an excellent OR program on Lake Havasu

Colorado River, AZ *

Tribe manages an excellent OR program on Lake Moovalya

Duck Valley, NV *

Tribe manages Sheep Creek and Mountain View reservoirs for OR

Fort Apache, AZ *

Outstanding tribal OR/tourism program involving several reservoirs

San Carlos, AZ *

Excellent tribal OR program on San Carlos Lake and other waters
 Uintah & Ouray, UT *

Excellent tribal OR program involving several popular reservoirs
 Walker River, NV *
 Tribe manages Weber Reservoir for OR

PORTLAND AREA

Colville, WA *

Major OR/tourism program on Lake Roosevelt and other waters

Flathead, MT *

Major OR/tourism program on Flathead Lake and other waters

Fort Hall, ID *

Reservation borders the popular American River Falls Reservoir

Nez Perce, ID

Tribal OR program includes Dworshak Reservoir on reservation

Spokane, WA

Tribe assists in OR management on the popular Lake Roosevelt

Umatilla, WA *

Tribe manages the popular Indian Lake for OR

Warm Springs, OR *

Major OR/tourism program including Lakes Simustrus & Chinook Yakama, WA
 Excellent tribal OR program involving some man-made lakes

 OR Outdoor Recreation

* Tribe's reservoir(s) included on FEMA listing of 152 BIA managed waters.

Redline The tribe's history of providing outdoor recreation and public use opportunities coupled with the recreational values and potentials of associated man-made waters suggest a better fit with the recreational lakes initiative.

Task 18

Feasibility of a National Recreation Lakes System

Public Law 104-333 established the National Recreation Lakes Study Commission and charged the Commission to prepare a report that included, among other requirements, a recommendation concerning the feasibility of establishing a National Recreation Lakes System (System). The Act envisions a system of specifically identified lakes to be “managed through innovative partnership-based agreements between Federal agencies, State and local units of government, and the private sector.” Also, the lake system would be “consistent with and subject to the authorized purposes for any manmade lakes and reservoirs and shall emphasize private sector initiatives in concert with State and local units of government.”

The following benefits and concerns associated with a possible System are identified with a brief discussion for clarification and evaluation purposes. It should be noted that many of these items could be considered either positive or negative depending upon the perspective of individuals, interest groups, agencies, communities or stakeholders. For a general discussion of existing areas with national designations, refer to Task 12, Designation Considerations for a National Recreation Lakes System.

Benefits of a System

- 1. Additional appropriations to support a new program.** With the public interest in recreation opportunities expanding and an existing backlog of facilities maintenance, additional funding may be provided to accommodate these needs. A need for additional funding could also create an incentive to develop new partnerships.
- 2. Management flexibility.** With a new program will come new ideas, innovations and collaborative efforts for mutual benefits, but only if the local managers are provided the flexibility to extend and expand on their individual creativity. Any management innovations will need to balance the manager’s independence to create beneficial partnerships with maintaining a level of program consistency and standardization.
- 3. Agency awareness and support to accommodate a national need.** Participating agencies with designated lakes would provide greater support through increased budget and personnel allocations during the fiscal year. Also, the long-term planning process would provide the extra consideration needed to emphasize the management of these specially designated lakes. A System would highlight the recreation responsibility of all agencies and therefore include a strong recreation component in their policies and operational guidance.
- 4. State and local involvement and support due to economic benefits.** Federal lakes have long been recognized as a point of recreation attraction for public enjoyment. The System designation may encourage States to promote these attractions to increase economic activity resulting in tourist revenues and the creation of jobs. The State and local tax-base would increase if on-site and adjacent controlled development increases. Because of the diversity of Federal lake locations and characteristics, a variety of recreation attributes and amenities could be emphasized at different lakes and, in some cases, at the same lake.

5. **Increased environmental health and awareness.** Federal lakes usually have multiple purposes and multiple benefits. National recognition of the lakes within a designated System would provide the outreach opportunity to demonstrate the compatibility of a healthy environment with multiple water uses. Awareness to environmental values would be stressed for all water users, including the recreating public.
6. **Standardized operation and maintenance.** There are various Federal agencies located in different governmental departments with lake responsibilities. Because of the different missions of these agencies, they often operate under different laws with different regulations, authorities and guidelines. A System designation might result in consistent management guidelines across Federal agencies and consistent consideration of all resource values.
7. **Customer Service.** A System designation might create more of a customer satisfaction orientation. Concessionaires would be considered and evaluated using consistent procedures and standards at each System lake and the public could expect consistent quality of service from concessionaires. Facilities would be constructed and maintained to the same standard and quality to meet the expectations of the recreating public. Concession policy could be standardized among cooperating agencies.
8. **Provide new authorities to agencies through demonstration projects.** The types of new authorities that might be provided include: authority to retain all or a portion of fees collected at a site to be used for management activities or improvements at that site; new authorities for public/public partnerships and public/private partnerships for development and operation of facilities; and new authorities and flexibility in Federal agency concessions policies including incentives, 'pilot' changes in ownership, as well as lease timeframes.
9. **National recognition could create special activities and opportunities.** National recognition of Federal lakes could create special activities and opportunities in the future, including marketing of special publications, "passports," maps and research opportunities.

Concerns of a System

1. **Limited resources with expanding responsibilities.** Increases in visitations might create pressures on existing funding and personnel resources to respond to public demand for services. If the designation of a lake occurs without additional funding support, visitor satisfaction might be negative as well as the effect upon the environment and community relations.
2. **Environmental and cultural degradation.** With increased publicity and a resulting increase in visitor numbers, public use might quickly exceed the lakes carrying capacity. This would be detrimental to the very environmental qualities that attracted the visitors. The historic cultural attributes of the area may be impacted and irretrievably changed.
3. **Additional Federal involvement with Executive Order or Legislation.** Creating another national System raises the specter of "micro-management from Washington, D.C. bureaucrats." Local government, communities and interest groups around the lake might perceive a loss of local control to Federal managers or powerful national recreation interests.

4. **Increased tourism on a “local lake.”** Communities that develop around a local lake often have a character of their own. These communities might have negative feelings about sharing the “local lake” with an increased tourist population and increased resident population. A concern for unacceptable social, environmental and economic impacts might develop.
5. **Increased need for support services.** Many lakes are located some distance from a large metropolitan area, but fairly close to smaller communities that have less capability to provide for services required by increased tourism and resident populations. Increased need for support services might place a strain on small local budgets by requiring increased capability to provide for social services, zoning regulation, community planning and infrastructure development.
6. **Resistance within Federal agencies.** Some agencies might resist the establishment of a System if they perceive they could lose management control of the lake for hydropower, navigation, flood control, natural resource management, and other uses in favor of recreation.
7. **Loss of existing water rights control.** There are many stakeholders affiliated with most of the water projects and structures creating the Federal lakes and reservoirs. Any increase in the level of an activity not currently existing on that lake might be perceived as a loss of some existing control of water rights. Even if the original project authorized some level of recreation use, but is not currently in place, the perception of loss of control might create opposition from user groups unless a formal accommodation or agreement on uses is negotiated (i.e., irrigation, navigation, water supply, power generation, fish and wildlife needs, downstream flows).
8. **Cost allocations for water use.** Water projects are paid for through water use contracts of various types. Any change in the amount or conditions of use of the water currently paid for under contract might require a renegotiation and reallocation of distribution of costs and benefits.

Conclusion

Recreation use of Federal manmade lakes has significantly increased and reached levels perhaps not realized when most of the 1,782 lakes were authorized by Congress. The lakes provide unique resources and opportunities to enjoy a variety of popular water-related recreation pursuits. The lakes also represent a national resource that is not likely to expand in the future; therefore, their importance should be viewed from a national perspective. The cited benefits and concerns identify several good reasons for placing a national emphasis on the significance of recreation use at some of these lakes.

Recommendation for consideration:

The creation of a National Recreation Lakes System appears feasible and would emphasize the significance of recreation use of these manmade lakes. Since the lakes have multiple uses, any consideration and selection process for a national system must fully recognize the

benefits and accommodate the concerns before formally designating specific lakes to a System.