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U.S. ARMY ENGINEER DISTRICT, LOUISVILLE
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CELRL-OPT

MEMORANDUM THRU: Operations Division (CELRL-OP/EUGENE A. ^{ea9}
DOWELL)

FOR: Commander, Louisville District


SUBJECT: Louisville District Wildland Fire Management Program
Policy

1. Request approval to implement a wildland fire management program policy (enclosed). This policy outlines the process for conducting prescribed burns and suppression of wildland fires at lake, river and wildlife conservation area projects within the Louisville District.
2. The point of contact for this action is Keith Chasteen, Natural Resources Management Specialist, Operations Section, 502-315-6724.

Encl


TRACEY L. KEEL
Chief, Technical Support Branch

Approved/~~Disapproved~~


CHRISTOPHER G. BECK
COL, EN
District Commander

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers, Louisville District
P.O. Box 59
Louisville, Kentucky 40201-0059

CELRL-OP

Wildland Fire Management Program

1. Purpose: To establish a District policy for conducting prescribed burning and fire suppression activities at lake, river and wildlife conservation projects in the Louisville District.
2. Authority:
 - a. ER/EP 1130-2-540, Chapter 8, Revision #3, 18 August 2008.

It is the policy of the U.S. Army Corps of Engineers to integrate fire management activities on all Civil Works projects in a manner that provides for the safety of the environment, public, and project personnel. In addition to wildland fire suppression, prescribed burning is a component of fire management used to accomplish resource objectives identified in the projects' Operational Management Plans.

- b. EM 385-1-1, Chapter 9 L, USACE Wildland Fire Control, 30 November 2014

All Louisville District projects with potential exposure to wildland fire, whether prescribed or unplanned, shall develop a wildland fire management plan.

- c. Section 2012 Federal Statute 42 USC 1856a and 1856a-1.

In accordance with the Water Resource Development Act of 2007, Section 2012 "Wildfire Fighting," the Corps has the authority to contract and pay for wildfire suppression services on Corps lands. The Operations Manager (OM) can initiate an action for the Corps to enter into a contract subject to compliance with all applicable Federal procurement laws and regulations. The OM can also use project personnel to suppress wildfires on Corps lands provided these employees are appropriately trained and equipped as described in EP 1130-2-540, Section 8-4.

3. Applicability: The policies prescribed herein are applicable to all employees of the Louisville District.
4. Policy: All employees of the Louisville District are to follow the regulations outlined in the ER/EP 1130-2-540, Chapter 8, dated 11 August 2008, concerning wildland fire management. Further, actual wildland fire suppression activities is the prime responsibility of trained fire control specialist. Project personnel are restricted to attacking initial incipient stage fires until trained control specialists arrive on the scene at which time project personnel will withdraw and perform supportive roles unless

adequately trained and under supervision of the fire boss or fire chief at the scene. The use of project personnel for wildland fire activities is restricted to planning and implementing prescribed burning and initial response on incipient stage fires.

5. Fire Protection at Corps Projects: The OM is responsible for ensuring adequate fire protection of civil works properties including:
 - a. Prompt action by all trained employees to suppress incipient stage fires.
 - b. Notifying all appropriate Federal, State and local agencies prior to burning on Corps properties including the burning of debris piles.
 - c. Maintain a supply of clearly identified fire tools including shovels, Pulaski's and backpack water pumps.
 - d. District personnel participating in prescribed burning or attacking incipient stage fires must receive training that at a minimum encompasses fire line safety, basic wildland fire behavior and tactics, communication procedures, first aid, standard for survival, and the use, limitations and care of firefighting equipment. Annually, personnel must be medically cleared to perform those duties by a licensed physician. Projects are to maintain on file documentation that an employee has been cleared to participate in said fire duties. Additional standards and fitness requirements may be established at the discretion of the District Commander or OM in order to meet state and local requirements.

6. Definitions:
 - a. Debris Pile: An aggregation of any combustible material collected to concentrate fuel hazard and to facilitate disposal through removal by prescribed fire.
 - b. Fire Suppression: All work and activities connected with fire extinguishing operations, beginning with discovery and continuing until the fire is completely extinguished.
 - c. Prescribed Fire/Prescribe Burn: A pre-planned fire or burn for pre-selected lands under specific weather conditions to accomplish management objectives.
 - d. Pre-suppression: Any activities undertaken in advance of a fire to ensure a more effective fire suppression including overall planning, training of fire personnel, procurement, maintenance of equipment and supplies, fuel treatment; and creation of fuel breaks, roads, water sources, and where the control lines are to be established.

- e. Wildfire: An unplanned and uncontrolled fire consuming vegetative fuels, regardless of size or ignition source.
- f. Wildland fire: A fire occurring in vegetation within undeveloped landscapes, including wildfires and prescribed fires.

7. Procedures/Responsibilities/Training:

- a. Initial Training: All personnel directly involved in wildland fire management and cleared by a licensed physician are required to complete, as a minimum, initial training to include fire line safety, basic wildland fire behavior and tactics, communication procedures, first aid, standards for survival and use, limitations and care of protective and firefighting equipment. State and local training and certification requirements must be met.
- b. Refresher Training: For all level of duties, wildland fire management refresher training is required for all personnel participating in fire suppression and prescribed fire activities.
- c. Fire Management Plan: All authorized employees will review their project's Fire Management Plan (FMP) annually. FMP's will be included as a component of the project's Operational Management Plan (OMP). Reference EM 385-1-1, Section 09.L.01, "all USACE facilities and areas with potential exposure to wildland fire, whether prescribed or (un)-planned, a wildland fire management plan shall be developed." An example FMP is included in Appendix A.
- d. Protective Clothing: The project will provide all authorized personnel directly involved in wildland fire management with fire resistant pants and shirts, hard hats, leather gloves, non-steel toe leather boots and other related protective items. All personnel engaged in wildland fire management activities must wear the prescribed Personal Protection Equipment (PPE) referenced in EM 385-1-1, Section 09.L.02. All other personnel involved in wildland fire management activities on Corps lands, including contractors, volunteers and cooperators, must adhere to safety standards as indicated in EM 385-1-1.
- e. Hazardous Duty Pay: Under 5U.S.C 5545(d) and 5 C.F.R. 550.901-907, GS employees who are assigned hazardous duty or duty involving physical hardship are entitled to hazardous duty pay for the time spent fighting incipient stage wildfires. Prescribed fires, including debris piles, do not fall under the definition of "wildfires." OM's will certify the hours of actual time spent suppressing wildfires in order to justify payment of hazardous duty pay differential.

- f. Position Hazard Analysis: All authorized personnel engaged in fire management activities will have a Position Hazard Analysis (PHA) on file. A sample PHA is included as Appendix B.

 - g. Activity Hazard Analysis: An Activity Hazard Analysis (AHA) will be reviewed by all authorized employees participating in wildland fire activities prior to each action. Employees, contractors, volunteers and cooperators engaged in prescribed burning will review and sign off on the AHA prior to participation. A sample AHA is included as Appendix C.
8. Prescribed Fire Plans: Prescribed burning is a management tool to achieve site specific objectives, including the consumption of debris piles. Prescribed burns will be coordinated with appropriate local, state and federal agencies. All projects conducting prescribed burns must inform appropriate entities when the burn is to take place, including calendar date(s), time, and the number of acres to be burned. The OM is responsible for ensuring that all necessary permits are obtained prior to conducting a burn. An approved burn plan must be on file in the project office prior to conducting a burn. Burn plans will be kept on file for at least 2 years after the burn completion. Plans should be kept longer where historical reference is desired. Factors to consider before a burn can take place:
- a. Clearance from the air quality management departments of local and state governments (as required).
 - b. If burning services are contracted out, both the contractor and the OM must sign the burn plan authorizing the burn to proceed.
 - c. Notify appropriate regulatory agencies of the date of the burn.
 - d. Only trained personnel in wildland fire management may develop and oversee a prescribed burn.
 - e. The OM and designated Burn Boss will review the Project's Fire Management Plan prior to ignition.
 - f. Prior to burning, necessary environmental coordination/compliance must be completed and documented.
 - g. Debris piles must be monitored by trained/designated employee/contractor/cooperator until declared out by burn boss indicated in burn plan.
 - h. All burn plans will include a post burn report. Reference Appendix D.
 - i. Example of Prescribed Burn Plan is included in Appendix E.
9. Structure Fires: Structure fires are not part of the wildland fire management program. In the event of a structure fire, the fire should be reported immediately to local fire responders or by calling 911.
10. Wildfire Suppression: Federal statute 42 USC 1856a and 42 USC 1856a-1 provides the authority to contract and pay for wildfire suppression. All contracts or agreements binding the Government or its employees to assist with a prescribed burn will be reviewed. The Office of Council will review the contract prior to signing said contract or

agreement. In the event a prescribed fire gets out of control, reference the Wildfire Conversion Chart (Appendix F).

11. Reciprocal Agreements: The Corps is authorized to enter into reciprocal agreements as referenced in ER/EP 1130-2-540, Chapter 2, Natural Resources Management, section (g), paragraph 2. Any or all costs incurred in furnishing fire control on lands owned by the Corps are covered.

12. Responsibilities:

- a. District Office: The Operations Section, Technical Support Branch (OPT-O), provides district-wide guidance, support and oversight for the Fire Management Program.
- b. Operations Manager: The OM will ensure that subordinate managers adhere to the guidance of this plan and that each participating project staff member is appropriately trained and equipped to support the Fire Management Program.
- c. Project Manager/Lockmaster: Site managers will ensure that each participant in the Fire Management Program, including permanent, temporary, volunteer, cooperator and contractor, is properly trained and equipped to fully perform duties assigned.
- d. Fire Participant: All employees, cooperators and contractors are responsible for their own safety. Every participant in the Fire Management Program has the authority to identify and make-known unsafe practices and situations.

APPENDIX A

WILDLAND FIRE MANAGEMENT PLAN

A-1. Wildland Fire Management Plan. Prior to implementation of a prescribed burning program, projects will develop a Wildland Fire management Plan. Upon completion, this plan will be included as an appendix to the Operational Management Plan (OMP). The wildland fire management plan will outline in detail the specific operation and administration requirements for managing wildland fires.

A-2. The District Commander may dictate specific formats and detailed

guidance. A-3. Preparation.

a. The wildland fire management plan will address all aspects of wildland fire management, which includes wildfire control and prescribed and debris burning. The wildland fire management plan will be used as a tool for establishing specific wildland fire management strategies, such as training, prescribed burn plans, public education and involvement, and cooperative agreements and contracts.

b. A basic outline is to be used as follows:

1. Introduction
 - a. General
 - b. Purpose
 - c. Authority
2. Fire Protection
 - a. General
 - (1) Wildfire
 - (2) Prescribed Fire
 - (3) Wildland - should include a statement about the difference between wildfire and prescribed fire, which includes debris piles.
 - b. Objectives (e.g. reduce number of fires, keep number of acres burned to a minimum, reduce the economic loss, protect habitat for a specific threatened or endangered species)
 - c. Fire Seasons (times of year)
 - d. Access (roads, bridges, seasonal crossings, etc.)
 - e. Available Resources (water)
3. Prevention
 - a. General
 - b. Prevention Activities/Programs (public education, hazard reduction activities, etc.)

4. Preparedness
 - a. Training/Safety Plans
 - (1) Basic
 - (2) Advanced
 - (3) Annual Refresher
 - (4) Physical Fitness
 - (5) Certification (for individuals identified as the fire personnel for the project)
 - b. Maintenance of Equipment
 - c. Tool Cache
 - d. Agreements (cooperative, contracts, etc.)
 - e. Fuels Management
5. Suppression
 - a. General
 - b. Jurisdictions/Incident Command
 - c. Suppression Operations
 - (1) Initial Attack Plan
 - (a) Command Structure
 - (b) Communication Plan
 - (2) Extended Attack Plan
6. Record Keeping/Reporting Requirements
7. Coordination
 - a. State
 - b. Local
 - c. Other Federal Government Entities
8. Approval
 - a. U.S. Army Corps of Engineers
 - b. State (If Applicable By Law)
 - c. Local (If Applicable By Law)
 - d. Other Federal Government Entities (If Applicable)

APPENDIX B

Position Hazard Analysis

(SEE NEXT 5 PAGES)

POSITION HAZARD ANALYSIS (PHA) FOR USACE EMPLOYEES

1. Name (Last, First, MI) (Print or type) Doe, John H.		2. Prepared By (Last, First, MI) (Print or type) Firefighter, Ima	
3. Job Series 0401	4. Job Title Natural Resources Specialist		5. Date (DDMMYY) 14 Dec 15
6. Office Symbol CELRL-XXX-XX	7. Command USACE	8. Primary Duty Location Project Name	
9. Reviewed by (SOHO) (Last, First, MI) (Print or type) Ball, Jeremy		10. Reviewed by (SOHO) (Signature)	

11. Clearances/Certification Required (Check all that apply)

<input type="checkbox"/> Diver HTRW	<input checked="" type="checkbox"/> Driver's License First Aid/CPR	<input type="checkbox"/> Respirator EM Ops PRT	<input type="checkbox"/> Crane Operator Boat Operator	<input type="checkbox"/> CDL Other (Specify) _____	<input type="checkbox"/> Confined Space Entry Rx Fire _____
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12. Position Information

Position Tasks	Safety and/or Occupational Health Hazards	Controls	
Office Work	Eye strain	Ensure proper lighting. Ensure computer monitor and document copy stand are at approximately the same height and distance. Reduce computer screen glare by installing anti-glare/anti-static screens.	
	Wrist strain	Ensure computer keyboards are adjusted so that the elbows are at a 90-degree angle and arms and hands are parallel to the floor. Use wrist rests or other support so that wrists are maintained in a neutral position.	
	Neck/shoulder fatigue	Ensure monitors are properly adjusted so that the top of the screen is slightly below eye level and is between 18 and 28 inches away.	
	Slips, trips, falls	Use good housekeeping practices. Secure tripping hazards (cords) to floor. Do not leave file drawers open when unattended.	
	Back strain	Use proper lifting techniques. Get assistance when necessary. When lifting, keep the load close to the body and lift with the legs. Use dolly when possible.	
	Electrical shock	Do not re configure wiring in systems furniture panels. Ensure equipment is properly maintained and grounded. Protect electrical cords from damage by using Protect electrical cords from damage by using cord covers. Do not overload outlets.	
	Cutting tools	Cut in direction away from hands and body.	
	File cabinets/shelves	Avoid tipping, fill bottom file drawers first. Do not open more than one drawer at a time. Place heavy objects in/on bottom shelf/drawers.	
	Travel	Motor vehicle accidents	Obey traffic laws. Adjust vehicle operation to road and weather conditions. Employ defensive driving techniques. Defensive driver training every 4 years.
		Uneven Surfaces	Reduce speed appropriately
Deer and other wildlife strikes		Stay alert, use caution, and drive defensively.	
Reduced visibility		Ensure windows/mirrors are free from snow and ice. Drive with headlights on. Reduce speed appropriately.	
Slick, snowy, or icy roads		Use all weather tires, reduce speed, and increase following distances	
Commercial travel	Backing	Extra care should be taken when backing to ensure clearance from objects and personnel.	
	Airlines	Obey safety rules on common carrier transportation	

NOTE: Examples of potential hazards are as follows:

Safety: Trenching, electrical, slips, trips, fall hazards, etc..

Chemical: Solvents, paints, welding fumes, pesticides, etc..

Physical: Heat/cold, noise, stress, vibration, radiation, etc..

Biological: Bloodborne pathogens, poison ivy, insects, fungi, etc..

<p style="text-align: center;">Equipment to be Used (List equipment to be used for each task)</p>	<p style="text-align: center;">Training Requirements (List training requirements, including hazard communication)</p>
<p>Vehicle Transportation to Job Site</p> <hr/> <hr/> <hr/> <hr/>	<p>Maintain a current state motor vehicle operations identification card and practice the principles of de</p> <p>Refer to EM 385-1-1 18.A. 01 and 18. A.02</p> <p>Pre-trip inspection of vehicles for safe working conditions, i.e. brakes, lights, horn, fire extinguisher, a</p> <hr/> <p>Refer to EM 385-1-1 18.A. 03</p> <hr/> <p>Operation of motor vehicle and transportation of personnel shall be in accordance with EM 385-1-1.</p>
<p>Computers, printers, faxes, file cabinets, p</p>	<p>Training as needed</p>
<p>Tractor and attachments, riding mower, s</p>	<p>Training required at a minimum every 5 years or as policies change or need arises</p>
<p>Weed eater, hand trimmers, chainsaw, han</p>	<p>Tool & equipment training every 5 years or as policies change or need arises</p>
<p>Portable water pump</p>	<p>Training as needed</p>

POSITION HAZARD ANALYSIS (PHA) FOR USACE EMPLOYEES

12. Position Information, continued

Doe, John H.

Equipment to be Used

Training Requirements

(List equipment to be used for each task)

(List training requirements, including hazard communication)

Initial Fire Training*

Emergency Procedures

Defensive Driver Training

GSA Vehicle Usage

EM 385-1-1

HAZCOM

Medical Facilities

Composite Risk Management

*As required to meet state or local certification

The training requirements listed above are not all inclusive; your supervisor may require additional training for continuing career requirements.

This analysis serves as the hazard assessment required by Sections 01, 05, and 06 of EM 385-1-1, U.S. Army Corps of Engineers Safety and Health Requirements Manual. The employee covered by this analysis has been instructed in the tasks to be performed, the hazards to be encountered, the potential adverse effects of exposure to such hazards and the controls to be used. He/she has received adequate training specifically related to safe work practices, administrative and engineering controls and personal protective equipment (PPE) to be used in order to assure assigned work tasks are conducted in a safe and healthful manner. He/she has demonstrated an understanding of the safety and health equipment and PPE to be used to include its limitations, useful self-life, how to properly don, doff, adjust, and wear required PPE and how to properly care for, inspect, maintain, store, and dispose. Attached is documentation of the training received, dates of such training, and the subject matter taught.

Print Form

Submit by Email

13. Supervisor (Signature Date)

14. Employee (Signature Date)

AHA

Prescribed Burns

Job Site: Caesar Creek Lake

Job: Prescribed Burns of Project Native Grass Lands

Date:

AHA/Risk Analysis Worksheets Covered:

AHA 100 Fuel Vehicles and Equipment

AHA 148 General Vehicle Operation

AHA 255 Controlled Burns for vegetation control, wildlife management, prairie management, clearing ditches, etc.

AHA 262 Operating Utility Vehicles

EM385-1-1

Sect. 05 Personal Protective and Safety Equipment

Sect. 05.B Eye and Face Protection

Sect. 05 G. Respiratory Protection

Sect. 09.L USACE Wild Land Fire Control

Sect. 13.A Hand & Power Tools

Sect. 18.A Motor Vehicle Operation

Training: Must have attended State of Ohio Fire Academy Inter-Agency Wildfire (S-190) or equivalent or possess a certificate from ODNR, Divs. of Forestry as a Prescribed Fire Manager.

Physical Requirements: Must have been certified by a physician as physically capable of participating in Prescribed fire and have this information on file at the District Health Unit in accordance with the requirements of EM385-1-1.

Required PPE

Fire Resistant Clothing

Fire Hard Hat w/ Face Shield

Or Goggles or Safety Glasses

Non-Steel Toe, Leather Boots

Fire Resistant Gloves

Tools Required

Drip Torch & Appropriate Fuel

Pulaski

Mule w/Water Tank & Sprayer

Shovel

McLeod

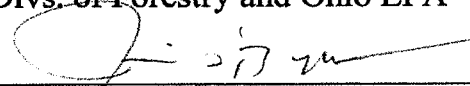
Fire Rake

Swatter/Flapper

Backpack Pump

Approved Burn Plan from ODNR, Divs. of Forestry and Ohio EPA

Prescribed Burn Manager/Fire Boss

 3/4/2016

OM Review & Approval

 Date 3/7/16

APPENDIX D
Post Burn Report Form

1. Total treatment acres:
2. Total acres burned:
3. Number of hours to complete the burn:
4. List any accidents/equipment loss:
5. Employees who participated in burn:
6. Supporting agencies, if any:
7. Were goals of prescribed burn achieved?
8. Recommendations for future burns of similar complexity:
9. Other (descriptions, photos, etc.):

PRESCRIBED FIRE PLAN

E-1. Prescribed Fire Plan. As required, prior to implementing a prescribed fire, which includes debris burning, a prescribed burn plan shall be prepared. The prescribed burn plan will outline in detail those elements, objectives, and techniques necessary to insure that public and private resources are protected, while achieving predetermined project goals. The prescribed burn plan will adhere to guidance and policy previously established in the wildland fire management plan.

E-2. Preparation. A basic outline is provided below. The District Commander may dictate specific formats and detailed guidance. The subjects below are considerations that should be addressed and may be included in all plans.

1. Cover Page
 - Prepared By
 - Reviewed By
 - Approved By
 - Corps of Engineers
 - State (If Applicable)
 - Local (If Applicable)
2. Other Federal Government Entities (If Applicable)
3. Date Prepared
4. Fire Out Certification
5. Project Objectives (fire plan objectives i.e., fuel reduction, wildlife habitat, etc)
6. Prescribed Fire Objectives/Range of Acceptable Results
7. Project Location (proposed fire location on the project)
8. Project Area Description
 - a. Project Area Size
 - b. Fire Area Size
 - c. Elevation
 - d. Slope
 - e. Fuel Model System - National Fireland Fuel Model (NFFL)
 - f. Vegetation Type
 - g. Narrative
 - h. Test Fire Results
 - i. Sensitive/Protected Areas/Threatened and Endangered Species
9. Prescribed Fire Description
 - a. Desired Flame Length
 - b. Fixed Indicators
 - (1) Dead Fuel (%)
 - (2) Live Fuel Moisture (%)
 - (3) Average Slope
 - (4) Aspect
 - (5) Continuity of Fuels
 - (6) Season
 - (7) Variable Indicators
 - (8) 1 Hour Timelag Fuel Moisture (%)
 - (9) 10 Hour Timelag Fuel Moisture (%)
 - (10) Relative Humidity
 - (11) Wind Speed/Direction
 - (12) Air Temperature/Stability
 - (13) Prescription Window – (Include fire behavior predictions and list the fuel models used for that prediction.)
10. Firing Techniques and Equipment
11. Pre-Burn Monitoring

- a. Weather (existing/predicted conditions)
- b. Vegetation (predominant vegetative communities present)
- c. Soils (basic type present and are there any environmental/fire effect concerns)
12. Preparation for Burning (list what needs to be done and when--can serve as check list or as a Go - No/Go procedure)
13. Smoke Management
 - a. Dispersal Direction/Mixing Height
 - b. Stability/Inversion Factors
 - c. Visibility Concerns
 - d. Other Conditions (proximity to residents, etc.)
 - e. Air Pollution Coordination and Control
14. Holding, Mop-Up, and Patrol Plan
15. Escape Contingency Plan (Includes what to do if control of the fire is lost)
16. Safety Plan and Activity Hazard Analysis
17. Public Information and Involvement
 - a. Pre-burn Involvement/Coordination (includes contacts, dates, and responsibility)
 - b. Burn Day Notification (includes agencies, phone numbers, and responsible person for making contact)
18. Communications Plan
19. Personnel Organization (Includes personnel involved and their assigned tasks)
20. Cost Summary (Include one to show cost/benefit of using fire versus other techniques)
21. Post Burn Evaluation
 - a. Date
 - b. Ignition Start Time
 - c. Ignition Stop Time
 - d. Prescribed Burn Results (accomplishments)
 - e. Narrative (problems, concerns, complaints, positives, etc.)
 - f. Weather
22. Maps
23. Complexity Elements Worksheet
24. Prescribed Fire Summary Complexity Rating Sheet
25. Fire Weather Forecast
26. Maps
27. Coordination
 - a. State
 - b. Local
 - c. Other Federal Government Entities