

# Strategic Campaign Plan for Reducing Public Fatalities

# 05 May 2017

Enclosure 1 FY 2017 Water Safety Message to Commanders

EXECUTIVE SUMMARY1
I. PURPOSE2
<ul><li>II. INTRODUCTION</li><li>A. Background</li><li>B. CDC Drowning Findings</li></ul>
<ul> <li>III. PUBLIC FATALITY DATA AND TRENDS ANALYSIS</li> <li>A. Fatality Cause</li> <li>B. Fatality Occurrences</li> <li>C. Activity</li> <li>D. Gender</li></ul>
IV. KEY MESSAGES FOR PROMOTING BOATING AND WATER SAFETY. 4
<ul> <li>V. GOAL, STRATEGY AND ACTION DESCRIPTIONS</li></ul>
APPENDIX A: USACE Public Water-related Fatalities Line Graph APPENDIX B: Division Public Recreation Fatalities FY98-FY16 Spreadsheet APPENDIX C: USACE Fatality Statistics FY98-16 Summary

APPENDIX D: USACE Fatality Statistics FY16 Summary

# EXECUTIVE SUMMARY

This strategic campaign plan developed by the National Operations Center (NOC) for Water Safety was designed to provide an analysis of U.S. Army Corps of Engineers (USACE) public recreation fatality statistic trends nationwide, identify key educational messages for target groups, and recommend actions that can lead to reducing public fatalities. The main focus of this safety campaign is to reduce the number of public recreation fatalities. This plan serves as vital management tool to assist by providing ways to accomplish our campaign goals.

The plan includes goals, strategies, and actions most of which have already been effective throughout the agency. Campaign actions are described in a variety of categories to include interpretation services and outreach, public education, media/public affairs/technology, employee professional development and training, safety campaign management, visitor assistance/regulations, recreation facility/equipment management, and partnership coordination.

A review of current public fatality statistics clearly shows which gender, age group and recreational activities that are most often involved in incidents. This trend data identifies our most at-risk visitor group and helps determine where the focus of our educational outreach should be. Trends analyzed since 1998 tell us our typical victim is male (88.4%), not wearing a life jacket (89.3%), swimming in a non-designated areas (47.1%), who is between 20 and 60 years old (59%). The second highest cause of recreation fatality or serious injury is from falls off vessels, docks, or shore at 18.9%.

From May 2007 through October 2011, the USACE conducted a life jacket policy study, in which measures of mandatory life jacket wear on selected agency recreational waters were tested. This test was driven by command consideration that more lives would be saved if life jackets were required to be worn while boating. As a result of the study the Life Jacket Mandatory Wear Policy Selective Expansion memo was signed by MG Michael Walsh, Deputy Commander of Civil Works and Emergency Management on 02 May 2012 and is still effective.

Getting the target age group of adult males to wear a life jacket through simple educational messaging without policy has proven challenging. Because this target group has little perception of risk and the fact that no law requires it, little motivation existed to change life jacket wear behaviors in adult males until the Life Jackets Worn...Nobody Mourns National Campaign was developed in 2015. The campaign incorporates interpretive messaging designed to capture emotional connections, so you can reach adult men in intangible ways and research shows that can increase our chances to provoke them to change risky behavior.

Those who support the promotion of water safety are encouraged to use the methods in this plan and to continue to discover and disseminate innovative ways to achieve our campaign goals and objectives of minimizing and eliminating preventable public accidents and fatalities.

**I. PURPOSE.** This strategic campaign plan developed by the NOC analyzes the USACE public fatality statistical trends nationwide, identifies key educational messages for target groups, and provides goals, strategies and actions for preventing public recreation fatalities. The primary goal of this safety campaign is to reduce the number of public fatalities.

#### **II. INTRODUCTION.**

<u>A. Background</u>. USACE is the leading provider of water-based outdoor recreation and has 250 million visitors per year. The USACE manages more than 400 lake and river projects in 43 states and the majority of visitors engage in aquatic recreational pursuits such as swimming, boating, or fishing. Unfortunately, accidents happen and too often, some of them result in the death of a visitor.

B. <u>CDC Drowning Findings</u>. According to the Center for Disease Control's (CDC) Web-based Injury Statistics Query and Reporting System (WISQARS) available at <u>https://www.cdc.gov/injury/wisqars/index.html</u>, drowning was our nation's tenth leading cause of unintentional injury death for all ages in 2015. It is the first leading cause for those in the 1-4 year old age group and second leading cause for those in the 5-9 year old age group. CDC data includes all drownings regardless of source or activity was 3,602 drownings in 2015. This includes home accidents (drownings in bathtubs; toilets; laundry tubs; swimming pools), occupational drowning and drowning as a result of recreational activity. While it is this last category (recreational activity) that the USACE is most concerned with, no archival data was found that provides breakouts. Therefore, CDC statistics can only be used as an indicator of trends.

**III. PUBLIC FATALITY DATA AND TRENDS ANALYSIS.** USACE public recreation fatality statistics have been analyzed in this section to identify current trends. The data allows us to identify target groups specifically for boating and water safety outreach. At the National level, USACE statistics on water-related fatalities have been kept by the NOC since 1998; therefore, the analysis refers to a 19-year time period between FY98 and FY16. U.S. Coast Guard data referenced pertains to their Recreational Boating Statistics 2015 report.

A. Fatality Cause. The USACE data shows a total of 3,011 water-related fatalities in the 19-year period. Drowning accounted for 85% of these deaths. Other causes include 10% trauma, 2% cold water/hypothermia, 1% carbon monoxide poisoning, and 2% unknown. Tracking of all public recreation fatalities began in 2007, but non-water related fatalities have always been minimal in number. Non-water related fatalities are primarily caused by falls (ATVs, bicycles, motorcycles, tree stands etc), and firearms (hunting accidents). Based on this information, a focus on drowning prevention is the most effective method to achieve the desired reduction in fatalities.

B. <u>Fatality Occurrences.</u> The majority of drownings reported at USACE projects occurred during times of heaviest visitation. The greatest number of fatalities occurred on weekends with the most fatalities occurring between the months of May and August. The majority of all fatalities occurred on Saturday and Sunday, 1:00p.m. to 7:00 p.m., during June and July. This supports perception that when recreation areas are the busiest and water temperatures are warmest, the potential for fatalities involving visitors increases.

C. <u>Activity.</u> Swimming and boating constituted the two largest categories of recreational activities that led to fatalities. Between FY98 and FY16, 46% of the deaths were swimming-related and 44% were boating-related. However, 10% of the boating category involved people swimming around boats, therefore boating-related fatalities were 34% of the overall fatalities and swimming-related fatalities could be viewed as 56%.

1. Boating: According to U.S. Coast Guard statistics, collisions are the main types of boating accidents. However, falling overboard, ejected from vessel, and the vessel capsizing are the main types of boating-related fatalities. Eight out of ten boaters who drown were using vessels less than 21 feet in length. They also report that in all boating-related fatalities only 15% of the operators had received boating safety instruction.

The USACE data shows falls from vessels accounted for 12.29% of all public recreation fatalities. Other falls from docks and shoreline areas accounted for 6.61 %. Unintentional entrance to the water by falling, either from a boat or another structure, was the  $2^{nd}$  leading cause of public fatalities at 18.9%. Capsizing was 8.3% and collisions were 5.21%.

2. Swimming: Swimming is categorized in USACE statistics for recreational purposes, as anyone who intentionally enters the water. Based on anecdotal information received from park rangers, exceeding a person's swimming ability is the main reason for swimming-related fatalities.

USACE data show swimming in non-designated areas was the single highest type (47.1%) of all public recreation fatalities that occurred during the review period. Of all swimming-related fatalities 85% occurred while swimming in non-designated swim areas. Only 15% of swimming-related fatalities occurred at designated swimming beaches.

3. Diving: Diving-related injuries paralyze thousands of people each year. However, USACE statistics for these non-fatal accidents are not documented on a national basis and detailed information from any reliable source was not found. According to USACE statistics jumping from bridges, cliffs, and ropes account for 3.92% of all public recreation fatalities.

D. <u>Gender</u>. The majority of water-related fatality victims were male. Males constituted 88.4% of USACE public recreation fatalities.

E. <u>Life Jackets.</u> U.S. Coast Guard data indicate that 85% of boating-related fatalities in 2015 were not wearing a life jacket. Nationally, USACE data indicated over 89.1% of all public recreation fatality victims were not wearing a life jacket. Current U.S. Coast Guard law requires life jackets be easily accessible for each person riding in a vessel, but generally adults do not actually wear them. USACE projects that have implemented life jacket mandatory wear requirements at their projects under the District Engineer's Title 36 authority, section 327.12.a (posted restrictions) have found that the majority of people comply with these requirements when it is adequately enforced.

F. <u>Age.</u> Throughout the USACE, statistics showed 59% of all drownings involved individuals between the ages of 20 and 60. USACE records in 10-year age groups showed the highest percentage of fatalities (23%) were in the 10-20 year old category. Other statistical categories and percentages are charted below.

Public Fatality 10-Yr Age Groupings										
Age 0-9	6%	169								
Age 10-20	23%	679								
Age 21-30	21%	632								
Age 31-40	15%	463								
Age 41-50	13%	398								
Age 51-60	10%	305								
Age 61-70	6%	184								
71 & Over	4%	120								
Age Unknown	2%	61								

G. <u>Alcohol.</u> The U.S. Coast Guard reported in 2015 that alcohol was a leading factor in 17% of all boating fatalities. According to USACE statistics since 1998, drugs and/or alcohol were factors in 19% of the fatalities, 3% were suspected, and 27% unknown. The "suspected" category was added as an option in ENGLink fatality reporting in 2010 as an indicator only. Involvement of alcohol or drugs is difficult to determine with any certainty by USACE park rangers at the scene and generally such facts are established

off-site through autopsy or other non-USACE investigations. Anecdotal evidence suggests a much higher impact from alcohol or drugs but because of the Healthcare Insurance Portability and Privacy Act (HIPPA) regulations, the USACE has limited access to this type of information. It is very important for those entering PAN report data into ENGLink to code alcohol use as "Unknown" or "Suspected" unless clear evidence shows otherwise. To ensure accurate data, ENGLink must be updated when information changes. Field office personnel and safety office staff must proactively work to obtain accurate information and update the data.

H. <u>Minorities.</u> According to the 2006-2015 Center for Disease Control WISQARS, drowning is the fourth leading cause of unintentional injury deaths in the U.S. for Hispanics of all ages, as compared with the sixth leading cause when all ethnicities are included. Firfty-one percent of these Hispanic drowning deaths are in the 1-14 year old age group and 16% are ages 15-64. Ethnicity has not historically been tracked in USACE fatality statistics. For those entering fatality ENGLink PAN Reports, indicate the primary language of the victim if known in the report.

I. <u>Recreation/Navigation Conflict.</u> There is a growing concern over conflicts on our nation's waterways between recreational boaters and commercial navigation traffic. The interaction between recreational vessels (powerboats, kayaks, canoes, and standup paddle boards) and commercial vessels is a safety concern, with the level of risk varying between waterways. The degree of risk appears to be influenced largely by the lack of awareness or understanding of the navigation rules among a large portion of recreational boat operators and by their lack of adequate boating knowledge and skills. The U.S. Coast Guard responds to accidents on navigable rivers that often involve fatalities. Unfortunately, USACE Safety Offices and our river projects are seldom made aware of river incidents unless someone hears about them through their contacts with local agencies or through the media (newspapers, radio etc).

**IV. KEY MESSAGES FOR PROMOTING BOATING & WATER SAFETY.** Fatality statistics serve as the basis in determining the main focus of these key messages. These messages provide critical safety points that our visitors should know to avoid being the next victim; modify as necessary to fit unique conditions found in your region.

A. <u>Life Jackets Worn...Nobody Mourns</u> The NOC initiated this campaign in 2015 to target adult men, who is our highest-risk group for public recreation fatalities and materials depict the typical causes of fatal accidents. To give some guidance on how to implement and use the campaign the NOC developed a USACE Adult Water Safety Campaign Resource Guide that is available on the NRM Gateway in the water safety section. Downloadable campaign products such as the logo, video and audio PSAs, posters, social media ads, and banner, billboard, publication ad artwork are available at <u>www.PleaseWearIt.com</u>.

#### B. Wearing a Life Jacket Can Save Your Life

Falls contribute to 27 percent of boating fatalities, so a life jacket worn increases your chances of being rescued. A fall into the water can be like hitting concrete if you're moving fast and it's easy to get the wind knocked out of you. To ensure you survive unexpected slips or falls overboard wear your life jacket, because it provides you time to be rescued. It only takes an adult an average of 60 seconds to drown and on average it takes 10 minutes for a strong swimmer to put on a life jacket after entering the water. If you will not wear it for yourself then wear it for those who love you.

# C. Never Exceed Your Swimming Abilities or Swim Alone

Swimming in a lake or river is not like swimming in a pool. Regardless of how well you swim you should wear a life jacket in open water condition such as in a lake, river, or pond because you could have to fight for your life due to unexpected conditions such as waves, current, or exhaustion. Drowning victims usually become unconscious from inadequate breathing that deprives their brain of oxygen and they may die before inhaling water into their lungs. Remember your swimming abilities are likely to decrease with age, so don't overdo it. Many people drown when they attempt to retrieve an inflatable toy or even a boat drifting away because they can't swim as far as they think they can. Also, most people don't have the strength or skill to get back into a small boat from the water without wearing a life jacket. A fellow swimmer that should also be wearing a life jacket can help you out using proper rescue techniques if you encounter the unexpected. A manual-style inflatable belt pack life jacket works great for swimmers because they can pull the cord to inflate it if they overestimate their swimming abilities.

#### D. <u>Always wear a life jacket while swimming outside of a designated swim beach area.</u>

Exceeding swimming abilities is the primary factor that people drown in USACE lakes and rivers. Several people have drown while swimming to a buoy or across a cove. In bodies of water that the water depth fluctuates you do not have any idea what lies under the water's surface or what may be floating in the water. Therefore jumping and wading in those waters without wearing a life jacket greatly increases the chance that you might drown. Carbon Monoxide (CO) can lay on the water's surface around boats so when swimming around boats only one breath of CO can kill you. To help ensure that you return home safely always wear a life jacket while on or near the water, even while swimming.

E. <u>All activities near water are risky so you should always wear a life jacket regardless of your</u> <u>swimming or boating abilities.</u> Most people don't perceive calm water as a risk. The fact is, calm waters and nice weather is when most people drown. Obey posted restrictions around dams because even though the water may look calm there are currents circulating underneath the surface that can pull and hold you under the water causing you to drown.

#### F. Alcohol and Water are a Deadly Combination

When underwater and under the influence of alcohol or drugs you can suffer from an inner ear condition (caloric labyrinthitis) that causes you to become disoriented and not know which way is up. Also, boaters can develop "boater's hypnosis" a condition in response to sun, wind, noise, vibration and motion, which causes fatigue and slows your reaction time. Combining that condition with alcohol or drugs greatly reduces your coordination, judgment and reaction time, which could lead to deadly consequences.

www.boatus.com/seaworthy/magazine/2011/july/alcohol.asp

#### G. Involuntary Gasp Reflex Can Kill You

A sudden unexpected fall into cold water causes an involuntary gasp (or torso) reflex. Your gasp reflex is delayed when you are under the influence of alcohol or drugs, which can lead to a last breath of water, instead of air. Falls contribute to 18.9% of all water-related fatalities on USACE-managed waters. <u>https://www.oregon.gov/OSMB/forms-library/.../2015-2580 Hypothermia2015.pdf</u>

#### H. Drowning is a Silent Killer

An estimated 60% of all drownings are witnessed, because people are unable to identify the four signs of a drowning victim. Signs are head back (bobs up and down above/below the surface), mouth open, no sound and arms outstretched moving simultaneously in an above-the-water, up and down stroke that appears as if they are slapping or playing in the water. http://mariovittone.com/2010/05/154/

#### I. Proper Rescue of a Person Drowning

Many drowning victims are within 10 feet of safety, having unintentionally entered the water. You should never go near anybody struggling to stay afloat, because you could drown too! To help rescue someone extend a pole, stick, line or clothing to reach them or throw something floatable to them. The "Reach, Throw, Row, Go for Help" rescue method is used to avoid multiple drownings. www.army.mil/article/51402/reach-throw-row-dont-go

#### J. Be Aware of Carbon Monoxide (CO) Poisoning

CO is a colorless, odorless gas that can harm and even kill you while you are inside or swimming outside of a boat. CO is lighter than water, so it invisibly hovers on the water's surface. Prevent the unexpected by learning more about where CO may accumulate and CO poisoning symptoms. A good source of information on symptoms and care can be found at: <u>www.cdc.gov/co/</u>. More fatalities have probably occurred than are known concerning CO poisoning, because it is not recorded in an autopsy report unless a carboxyhemoglobin test is asked for. Ask for it.

#### K. Take a Boating Course

Learn valuable tips that can help save your life in unexpected situations by taking a NASBLAapproved (National Association of Boating Law Administrators) boating safety course. Many insurance companies offer discounts to boating safety course graduates. In addition, many states require a boating education course for operators, sometimes only for those under a certain age. Courses are offered by the U.S. Coast Guard Auxiliary, U.S. Power Squadron, state agencies, and on-line at <u>http://www.boat-ed.com, http://www.boatus.org/onlinecourse/,</u> <u>http://www.americasboatingcourse.com</u> and <u>http://www.boatoncourse.com</u>.

#### L. Learn to Swim Well and Practice Floating

Besides wearing a life jacket, learning to swim well is one of your best defenses against drowning. Also, teach those you love and practice simple survival floating skills; remembering how to relax and float when exhausted can save your life. Swimming in natural or open waters is not the same as swimming in a pool. The USA Swimming Foundation works with local partners to offer free swimming lessons. Find a location near you at <a href="http://swimfoundation.org/Page.aspx?pid=347">http://swimfoundation.org/Page.aspx?pid=347</a>.

#### M. Watch Your Children

You may not expect your child to reach overboard or turn the boat key to see what might happen, so always be alert. On shore, children can quickly wander from the campground, picnic area or playground and end up in the water. It takes an average of 20 seconds for a child to drown, so always stay aware of their location; make them wear a life jacket and never take your eyes off of them around water.

#### N. Never Dive in Lakes & Rivers (Open Water)

Open water situations where water depth is unknown and conditions are constantly changing with floating or underwater debris can be very dangerous. You never know what might lie unseen below the surface of the water in a lake or river, diving should only be done in the deep end of a swimming pool.

#### O. Don't Depend on Floating or Air-filled Toys

There is no substitute for a properly fitted, USCG approved life jacket. Inflatable toys, including water wings, cannot be relied upon to keep children afloat and can deflate in seconds. Inflatable rafts or inner tubes can easily float into deeper waters and might slip away from you or your child unexpectedly.

## P. Cold-Water Immersion-HELP Response Can Save You

Cold-water immersion is the cause of many boating-related fatalities. The danger increases as water temperature decreases below normal body temperature (98.6 degrees F). Cold-water immersion follows four stages, starting with cold shock, followed by swimming failure, then hypothermia and finally post-rescue collapse. Most cold-water drowning fatalities are attributed to the first two stages, not hypothermia. All boaters should wear a life jacket and dress for the water temperature, not the air temperature. If self-rescue is not possible, actions to minimize heat loss should be initiated by remaining as still as possible in the Heat Escape Lessening Position (HELP), where your knees are drawn to your chest with your arms grasping them together, or simply huddling with your arms around other survivors in a circle. Additional layers of clothing can help you stay afloat by trapping air. Wet clothes will not weigh you down in the water as many people perceive, because water does not weigh more than water. "Cold Water Boot Camp" and "Beyond Boot Camp" are great videos teaching how to survive a fall into cold water; they can be downloaded or viewed online at: http://www.coldwaterbootcamp.com/pages/home.html.

#### Q. Boat with Consideration for Others

You are responsible for any damage caused by your vessel or your wake. Be cautious and aware of your surroundings at all times. Obey all signs and posted restrictions. Typically, irresponsible actions of boat operators lead to accidents, so boat responsibly. <u>www.uscgboating.org</u>

#### R. Inspect Your Equipment

Before every trip you should perform a safety check of your vessel. It is your responsibility to make sure you have all the required equipment on board such as life jackets, throwable device, certificate of number (state registration), fire extinguisher, visual distress signals, sound producing devices and whatever additional items Federal and your state's laws require. Check your engine, ventilation, backfire flame arrestor, electrical systems and trailer before you go. Take advantage of free vessel safety checks offered in your area by boating-related agencies. See Federal Boating Requirements at <a href="https://www.uscgboating.org/images/420.PDF">https://www.uscgboating.org/images/420.PDF</a>.

#### S. Steer Clear of Commercial Vessels

Commercial vessels have to stay within the navigation channel on rivers. An average tow boat pushing barges can take <sup>3</sup>/<sub>4</sub> to 1<sup>1</sup>/<sub>2</sub> miles to come to a stop. If you can't see the pilot, he or she can't see you, because a commercial pilot's blind spot can extend for several hundred feet to the front and sides of the vessel. To learn more about how to properly lock through visit https://www.youtube.com/watch?v=GC6d\_YAJ9zg.

# T. Watch for Dangerous Waves or Signs of Rip Currents

Rip currents are powerful flows of water that pull you away from the shore, even if you are a strong swimmer. These can occur in any body of water with breaking waves, including the Great Lakes. Swimming or even wading can turn into a tragedy if you don't know how to identify and respond to rip currents. These are identified by water that is discolored, unusually choppy, foamy, or filled with debris. If you are caught in a rip current it is important to stay calm and not panic. These are usually narrow currents and swimming parallel to the shore should get you out of them. Once out of the current, swim toward the shore. www.ripcurrents.noaa.gov/overview.shtml

# U. Know Before You Go-Prepare for Sudden Weather Changes

Always check the weather conditions and file a float plan (See sample at <u>www.boatsafe.com/nauticalknowhow/boating/float1.htm</u>) with a responsible person before you go

boating. Take maps or charts of the waterways you're traveling and a weather radio, so you can check weather conditions while boating. If you are caught in an unexpected storm make sure everyone still has on their life jackets and have them sit on the bottom of the boat close to the centerline. Reduce speed and head the bow of your boat into the waves at a 45-degree angle. Personal watercraft should head directly into the waves.

#### V. Wade with Caution

Watch for unexpected drop-offs and currents while wading in open water situations. The safest places to wade at USACE lakes are in designated swimming areas because they are inspected for dangers such as drop-offs.

# W. Obey All Signs and Buoys

Many times accidents, injuries and fatalities could have been prevented if the person just followed the posted signs or buoys. Staying within the buoys marking designated swim areas is the safest place to swim, especially where rescue equipment is located. You swim at your own risk on USACE managed waters because life guards are not provided; however, eighty-five percent of those who drown while swimming are outside of a designated swim area.

# X. Don't Rock Your Boat

Standing up in your boat can increase the risk of an unexpected fall overboard while your boat is underway, adrift or at anchor. Many falls overboard result in death, so to increase your chance of survival wear your life jacket.

<u>CAMPAIGN GOALS, STRATEGIES AND ACTION DESCRIPTIONS.</u> The following goals, strategies, and actions can lead the way in accomplishing a successful campaign to reduce public fatalities on USACE managed lands and waters. It is strongly suggested that all those who support public safety promotion (e.g. district and division water safety teams) not only use the methods in this plan, but continue to discover innovative ways to accomplish our campaign goal.

A. <u>Interpretive Services and Outreach Program Goal</u>: Elevate the importance of interpretation as a viable tool to achieve management objectives across all business lines and encourage support for the promotion of public safety throughout the USACE.

**Strategy**: All employees and volunteers should be aware of key safety messages and be trained in utilizing effective interpretive techniques to strengthen deliverability to target groups.

# **HQ** Actions:

- 1. NOC will look into working with promotional businesses to identify if dollars can be stretched by developing catalogs for give-away products so all USACE projects nationwide can purchase from the same sources.
- 2. NOC will revisit the products provided by the National Water Safety Program to determine if they need to be replaced to more effectively reach our target audience.
- 3. NOC will work with Interpretation NRM Gateway POCs to create a roving interpretation section. This section needs to define what roving interpretation is and provide examples.

# MSC, District and Field-level Actions:

1. Establish "Life Jackets Worn...Nobody Mourns" as the USACE nationwide campaign to promote boating and water safety to adults with an emphasis toward adult men. A campaign

resource guide has been developed by the NOC that provides information and resources on how to use the campaign effectively. The resource guide is available on the NRM Gateway in the water safety section.

- 2. Programs targeting children, such as Bobber the Water Safety Dog, have been effective in promoting water safety to kids, but current indications are that we have not adequately reached the target age group of 20-60 year old adult males. It is important at this time to focus on the Life Jackets Worn...Nobody Mourns initiatives that promote water safety to adults.
- 3. Staffed Events. Expand USACE presence at adult recreation venues and events on a national and regional level. It is a good idea for projects to work across district and division boundaries to be able to afford staffing booths at events in major metropolitan areas (e.g. boat, sport, travel shows, state fairs). The National Safe Boating Council's Inflatable Life Jacket kit is a great tool to use as part of an exhibit to help answer questions about inflatable life jackets.
- 4. Understand that using positive messages that create an emotional connection are effective in influencing adult males. The Life Jackets Worn...Nobody Mourns video and audio PSAs located on <u>www.PleaseWearIt.com</u> are excellent products that send positive emotional messages.
- 5. At least one-third of all interpretive presentations should focus on water safety. Weekend campground and beach presentations are recommended during peak visitation periods. Safety messages, if not the main topic, should be incorporated into all interpretive programs. Water safety interpretive program outlines are available in the NRM Gateway water safety section under Good Enough to Share.
- 6. Water safety programs have been developed to assist your interpretive outreach presentations to schools, civic groups, libraries and clubs at various off-project locations. The award winning "Safe Passage" program was developed by the NOC with lesson plans for teachers supportive of educational curriculum requirements for kindergartners through sixth-graders. If used as designed, the lessons are taught by teachers, reducing the requirement for park ranger presence. A similar program targeting teenagers, "The Young and the Reckless", also has a teacher's lesson plan available. Field projects should make these productions available to all schools in their area and campaign to make sure teachers are aware of them. The "Water Safety Through the Ages" DVD contains those two educational programs, as well as one called Wear-It-Right, on life jacket safety for all ages and can be ordered from the NOC water safety catalog that is distributed every December. Videos, curriculum, and lesson plan are available on www.PleaseWearIt.com under Educational Resources.
- 7. Water Safety Robots and Costumes. Educational tools in the form of mascot costumes and interactive character robots can be effective draws to your program or exhibit. "Bobber the Water Safety Dog" is currently the official water safety mascot for the USACE and costumes for Bobber can be purchased through GSA pricing from Robotronics, Inc., at <u>www.Robotronics.com</u>. The company also sells other USACE-used products, such as Seamoor Safety, Towboat, and Buddy Beaver.
- 8. Special Outreach Campaigns. Since many people head to the water for spring break, it is a great idea to promote water safety at area colleges and high schools just prior to spring break. At a minimum this can be accomplished by simply providing them with posters and other promotional materials. Also, a news release has been developed that includes a top ten list of things students needed to know before going on spring break and it is available in the NRM Gateway water safety section under Good Enough to Share.
- 9. Projects hold a variety of weekend special events. Some of these events deal with water safety themes, i.e. water safety carnivals, fishing fairs or family safety days. Projects should take advantage of any gatherings of large audiences to promote boating and water safety. At events such as kids fishing tournaments all participants should wear life jackets to ensure their safety

during the event. Provide loaner life jackets during the event if needed. In addition to events that we directly organize, it is encouraged to become involved with events that other agencies organize to promote safety (e.g. fishing tournaments, mall displays and parades).

- 10. National Safe Boating Week in late May is a great time to kick off the annual recreation season promoting safety. The National Safe Boating Council (NSBC) provides a variety of tools to assist in planning a great event. More information can be found at their website. <a href="http://www.safeboatingcampaign.com/">http://www.safeboatingcampaign.com/</a>. NSBC also coordinates Ready, Set, Wear It! and Wear a Life Jacket to Work Day events to promote the use of life jackets that you can conduct at your project or office.
- 11. Unstaffed Attractive Displays. These can be an excellent educational tool when placed at local restaurants, businesses, and libraries.
- 12. Water Safety Coloring or Poster Contests are used as a means to go into schools and inform children about being safe around water. Some have placed contest winners on billboards displayed around the lake.
- 13. Visitor Center Displays. It's a good idea to have displays that specifically address water safety. Making displays interactive can make them more effective. The NOC for Water Safety has developed a locking through game featuring Bobber the Water Safety Dog that makes a great exhibit. The Army has developed water safety games at <a href="https://safety.army.mil/SafetyCity/Pages/Water/WaterSafety.aspx">https://safety.army.mil/SafetyCity/Pages/Water/WaterSafety.aspx</a>. Some of these games have been converted to a CD so they can be used without an internet connection in an interactive exhibit. CDs are available from the NOC.
- 14. Inflatable Props. Unique inflatable props are often used to grab people's attention while promoting water safety. For example, a 25 foot tall wind dancing ranger wearing a life jacket has been used at several projects to promote water safety. Also, a portable six-foot tall life jacket can be purchased that is easy to inflate and can be used indoors or outdoors.
- 15. Water Safety Trailer. Water safety trailers have been entirely wrapped utilizing the Life Jackets Worn...Nobody Mourns, Bobber the Water Safety Dog, and other safety-themed graphics. Artwork for your project is available from the NOC.
- 16. The National Association of State Boating Law Administrators (NASBLA) holds an annual Operation Dry Water event the last weekend in June prior to the 4<sup>th</sup> of July holiday weekend to promote boating sober. Projects are encourages to work with their state counterparts in conducting these events. To register to participate in this event and resources are available at <u>http://www.operationdrywater.org/</u>.
- 17. Prize Wheel and Safety Quiz. A prize wheel in conjunction with a safety quiz can be an effective way to interact with visitors during an event. Participants take a short quiz for a chance to spin the prize wheel. There is an adult and child version of the quiz in the NRM Gateway water safety section under Good Enough to Share. The quiz can be used alone if a prize wheel is not available.
- 18. Fill the Boat. A unique way to obtain life jackets for your life jacket loaner program is to make "Fill the Boat" part of any event. Make a boat available at an event where people can bring new or used life jackets to place in the boat. The challenge is to fill the boat with life jackets before the event is over. Inspect the life jackets before placing them into your loaner program and destroy or use for educational purposes any life jackets that are not in good condition.
- 19. "I got caught" initiative. This initiative is used to reward anyone that is caught wearing a life jacket. If you catch a child wearing a life jacket you can give them a water safety promotional product or a coupon that was donated from a local restaurant for a free ice cream cone, cheeseburger, etc. If you catch an adult wearing a life jacket you can give them a free day use fee or camping pass good for one day. EC 1130-2-550 (30 Nov 2015) Chapter 9, Section 20 Safety Certificates gives us the authority to give out free day use or camping certificates. You

can also give a Life Jackets Worn...Nobody Mourns promotional product or partner with local businesses that can donate items like t-shirts to give to adults that are caught wearing a life jacket.

- 20. Water Safety Blitz. This is an event that is utilized to try and contact as many people as possible in a given day or weekend. You can partner with other organizations such as the U.S. Coast Guard Auxiliary, U.S. Power Squadrons, marinas, state parks, outgrantees, local communities, media outlets (tv, radio, newspapers), cooperating associations, tourism offices, etc to help you with this effort. It is an event where everyone is promoting water safety at the same time on-site at boat ramps, beaches, campgrounds, visitor centers, marinas, etc and offsite at restaurants, movie theaters, gas stations, schools, libraries, town hall meetings, etc. During the month of June or July is a great time to have a water safety blitz because more water-related fatalities occur in July than any other month. The average number of water-related fatalities that occur at USACE lake and waterways during the month of July is one per day.
- **B.** <u>**Public Education Goal**</u>: Promote the importance of taking a boating safety course if they boat and learning to swim well if they intend to go around the water.

**Strategy**: Improve communications and share resources with partners, public safety entities and educational organizations that provide boating safety and swimming instruction courses.

#### NOC, MCS, District and Field-level Actions:

- 1. Promote on-line, virtual training courses that complement traditional NASBLA-approved classroom courses.
- 2. Communicate with state agencies (e.g. Boating Law Administrators), U.S. Coast Guard Auxiliary and U.S. Power Squadron to provide boating safety courses at USACE projects.
- 3. Boating safety education courses are typically provided by state agencies and many of USACE park rangers are instructors for the state-authorized curriculum. Encourage USACE employees to become state boating course instructors when feasible.
- 4. Partner with YMCA, USA Swimming Foundation, and swim instruction organizations to promote water safety and learning to swim well.
- C. <u>Public Affairs/Media/Technology Goal</u>: Ensure broad, consistent and proactive public communication about recreation safety across the USACE.

**Strategy**: Appropriate personnel tasked to support the public fatality reduction campaign plan will provide timely and effective communication techniques including the use of the latest technology to promote safety.

# **HQ** Actions:

- 1. NOC will continue to utilize HQ PAO as an advisor for the National Water Safety Program and continue to have a PAO representative as a member of the national team.
- 2. NOC and their public affairs advisor will develop a strategic communication plan for the national water safety program for distribution and use throughout the USACE.
- 3. NOC will provide field public affairs offices and park ranger/safety staff with nationally consistent messaging and safety statistics and will ensure a clear understanding of the national water safety program and its activities.
- 4. NOC will develop key messaging scripts, news releases, social media calendars, and produce audio/visual PSAs for use in educational outreach when appropriate.

5. NOC will provide effective interpretive products designed to promote recreation safety through the newest, cutting edge technology i.e. QR codes, apps, etc.

# MSC and District PAO/OD Actions:

- 1. Develop or maintain division and/or district water safety committees to develop locallyspecific communication strategies for public recreation safety. Operations, public affairs, safety, lake and river project offices, and other offices such as real estate and office of counsel should work together as a team to promote water safety including but not limited to distributing water safety information, establishing partnerships, coordinating and staffing special events, conducting media interviews, and developing promotional products.
- 2. Facilitate proactive media engagement to communicate safety risks and tips, including disadvantaged/non-English-speaking groups.
- 3. Target public safety communication efforts to adults with an emphasis towards adult men.
- 4. Leverage social media to directly engage recreation users with safety information and tools. Utilize social media to share PSAs and ads created by NOC that are available on <a href="https://www.PleaseWearIt.com">www.PleaseWearIt.com</a> under campaign materials.

# **Field-level Actions**:

- 1. Use available opportunities to share best management practices for public recreation safety. Sharing them on the NRM Gateway in "Good Enough to Share" sections or simply providing ideas to your division representative on the National Water Safety Committee is strongly encouraged.
- 2. Encourage the use of social media (FaceBook, Twitter, YouTube etc.) at the local-level to promote safety. Use effective interpretive techniques to develop messages for mobile, handheld devices to inform and educate the public on water safety messages. Utilize social media to share PSAs and ads created by NOC that are available on <u>www.PleaseWearIt.com</u> under campaign materials.
- 3. Phone Information Hotlines. Consider use of tools such as 24-hour project information recordings for people to call for current fishing conditions, weather forecasts, upcoming special events, water levels, and other pertinent information. Each recording should include a seasonally-related safety message.
- 4. Travelers Information (AM Radio) Station. Travelers' information stations allow access to information both through their vehicle's AM radio station when within broadcast range and by telephone from any location. These types of low wattage, short- range, AM-frequency, radio stations provide programming similar to that used for years on the phone hotline services. Signs along the roadway can remind visitors to tune in or call for project information while enroute.
- 5. Radio Programs. Local radio stations often invite community personalities to provide on-theair interviews and informational programs for their listeners. Park rangers should use these programs as an opportunity to educate the media and the public about recreational opportunities in their communities, including the important messages on boating and water safety. Even if the program topic is something other than water safety, find clever ways to bring a safety message into any radio interview. Don't wait to be invited; visit with your local radio station manager and encourage the stations support of public safety initiatives.
- 6. Public Service Announcements (PSA's). Audio and videos PSAs when developed by the NOC are intended to be distributed by field staff to local television and radio stations. Radio and TV quality PSAs are available from the NOC on CD from the National Water Safety Product Catalog distributed every December and on <u>www.PleaseWearIt.com</u> under campaign

materials. Districts and local field offices are encouraged to produce their own recordings in cooperation with local radio and TV stations. Understand that there is high demand for air time for PSAs of all types of social causes these days and expect that display of such for free on local stations will be limited, if not challenging. In some cases, purchasing air time or space for water safety PSAs on television or radio, and even print media is often the only way to guarantee their use. Major holiday weekends should be targeted for these expenditures due to higher visitation rates. It is recommended that projects in close proximity of each other combine their PSA efforts to reduce costs. The USACE is prohibited from "Advertising" according to Federal procurement regulations; however, CECW-ON has issued permissions in various memorandums for USACE to procure air time or space to promote public safety.

- 7. News Releases/Newsletters/Media Interviews. Use news releases to the media to share important safety messages to the public. If the news release or media interview discusses another topic, find clever ways to include water safety as a secondary topic when appropriate. Use special events or emphasis weeks, such as National Safe Boating Week or the kickoff of major holiday weekends, and high water events as a newsworthy opportunity to deliver key safety tips. Local newsletters can also be distributed to visitors during the recreation season.
- 8. Telephone Hold Messages. Incorporate safety points or use short water safety jingles for callers to listen to while they are on hold. These seasonal safety messages can cover a variety of messages, including boating, swimming, angler and hunter safety. Audio PSAs available on <a href="https://www.PleaseWearIt.com">www.PleaseWearIt.com</a> under campaign materials can be used as telephone hold messages.
- 9. Television. Work with local television stations to develop newsworthy feature stories around Memorial Day and Fourth of July weekends. Start planning discussions early and look for event opportunities as a hook to community interest. Propose your ideas early. Look for stories that can be captured during the week, as reporter crews are limited on the weekends. Offer to take a reporter out on the water and talk about water safety tips while you conduct the tour.
- 10. Project Brochures. Although the call for printed publications may be dwindling, some pamphlets and brochures produced by projects and districts can be effective. Strive to include a water safety tip or message in each brochure produced.
- 11. Web Sites. Web sites offer great places to display water safety messages, safety games and informational links to other safety-related web sites. You may want to identify on project web sites any known dangerous areas and possibly convert that information into an app. Place a link to USACE Headquarters water safety website <u>http://www.usace.army.mil/Missions/Civil-Works/Recreation/National-Water-Safety\_Program/</u> on your website.
- 12. Make visitors aware of cell phone (911) coverage limitations on the lakes and rivers.
- **D.** <u>Employee Professional Development & Training Goal.</u> All appropriate USACE employees will have a basic understanding of boating and water safety and take responsibility to assist USACE efforts to reduce public recreation fatalities.

**Strategy**: Improve employee knowledge and skills for promoting and interpreting boating and water safety.

#### **NOC Actions:**

1. NOC will develop internal water safety short video/PPT presentations to assist those who distribute this information to employees.

#### MCS, District and Field-level Actions:

1. Employee Safety Awareness Training is encouraged. District Safety Offices generally require

safety training sessions during either weekly or monthly intervals and use other means of communication, (e.g. Safety Gram) to keep employee aware of risks.

- 2. The USACE has two interpretive PROSPECT courses designed to improve employee's skills in interpretation and that improves the effectiveness of our safety promotional efforts. One is the basic Interpretative Services course and the other is Advanced Interpretive Services course.
- 3. On-site basic interpretive and water safety training tools were developed by the NOC to assist the field in training Student Conservation Association (SCA) Public Safety Interns. However, these training materials can be used to train USACE employees as well. Materials include two PowerPoint presentations; one titled "Building Effective Interpretive Presentations" and another for "Boating & Water Safety Key Messages", along with an SCA Intern Handbook. An instructor handbook is included that is designed for any USACE employee to utilize to conduct a two-day training. Materials can be found in the NRM Gateway water safety section.
- 4. Various water safety requirements should be incorporated into each employee's performance objectives. For example, posting a new safety idea on the NRM Gateway or conduct so many hours of roving interpretation each week from Memorial Day through Labor Day.
- 5. Comply with USACE-specific motorboat operators training and operations requirements: all employees who operate USACE vessels less than 26 feet in length must be trained, tested, and licensed in accordance with ER 385-1-91, Safety - Training, Testing, and Licensing of Boat Operators, and other applicable regulations. Each project equipped with a boat should have an instructor for this course.
- 6. Use employee-assistance programs designed to minimize emotional distress following any crisis or major event. Critical Incident Stress Management Program (CISM) is a peer-driven stress management program that combines pre-crisis preparation, stress education and post-event response to help people recover more quickly from stressful job-related incidents and trauma, collectively known as "critical incidents." CISM can be very helpful to those dealing with public fatalities. More information on this program is available on the NRM Gateway.
- 7. Membership in organizations, such as the National Water Safety Congress (NWSC) and National Safe Boating Council (NSBC), is encouraged and can be especially beneficial for our non-profit partners who may be eligible for grants. It is recommended that employees responsible for water safety programs attend available professional training and networking meetings to stay abreast of current information and contacts. International Boating & Water Safety Summit (IBWSS) and National Drowning Prevention Alliance (NDPA) Conference, held annually, are ideal opportunities to learn from and interchange ideas with many boating and water safety experts.
- E. <u>Safety Campaign Management Goal</u>: Increase safety campaign efficiency and effectiveness for reducing public fatalities.

**Strategy**: Appropriate personnel tasked with reducing public fatalities will develop and implement safety initiatives, products and materials that support this goal.

# **HQ** Actions:

- 1. HQUSACE will establish a directive prioritizing water safety. The NOC will work to develop policies, procedures and guidelines supportive of pubic fatality reduction.
- 2. HQ Safety and Security along with the NOC will establish a simplified and consistent public fatality reporting system guidance.
- 3. NOC will provide educational products or tools (e.g. posters, rack cards, fun books, stickers, coloring sheets and various media products) supportive of field programs. These products will be offered on a first-come, first-served basis, at no cost to the field. Products can be requested

by submitting an order form coordinated through national water safety program division representatives. NOC products are limited in quantities and only intended to supplement what is provided locally.

- 4. NOC division representatives are intended to communicate program-related information between the field and the NOC.
- 5. NOC will strive to develop products that include both English and Spanish. NOC maintains a bilingual subcommittee to assist in those translations.
- 6. CECW-CO-N and NOC will utilize the National Cooperative Agreement for Youth Conservation Services to work with the Student Conservation Association (SCA) to manage the Public Safety Intern program when funding is available.

# MSC, District and Field-level Actions:

- 1. Management will establish performance measures for their employees that support public fatality reduction.
- 2. MSC and districts will maintain water safety committees that consist of representatives from each field project and district OD, SO, PA, OC, and possibly RE who work together to accomplish this goal. Water safety committees should consolidate purchases of safety incentive products intended for the public to reduce costs.
- 3. Comply with the Public Safety Promotional Material Policy, dated 27 Nov 2002 to assure that products purchased are nominal in value. Examples of products that are authorized include pencils, wrist bands, magnets, fishing bobbers, tape measures, sunglass lanyards, cups, refrigerator eraser boards, magnets, mini multi-tools, ink pens, floating key chains, etc. A copy of this policy can be found in the NRM Gateway water safety section under Policy and Procedures.
- 4. Keep your National Water Safety Committee Division Representative apprised of key activities and initiatives that could benefit other districts and/or be adopted at the national level.
- 5. Representatives from district water safety committees should collaborate at the division level to cross-share information and establish regional goals.
- 6. Field offices should be encouraged to work with local cooperating associations or water safety councils as a way to minimize the costs on safety promotional items.
- 7. Utilize NRM Gateway to share best management practices for promoting public safety.
- 8. Take advantage of various hiring programs that leverage dollars and minimize our costs e.g. National Cooperative Agreement for Youth Conservation Services with Student Conservation Association (SCA), Warriors in transition/Wounded Warrior, and volunteer program.
- 9. To ensure accurate data, ENGLink PAN Reports must be updated when information changes (e.g. if alcohol or drug use, heart attack or homicide is determined). Field office personnel and safety office staff must proactively communicate to obtain accurate information and update the data. Those entering PAN report data into ENGLink should code alcohol use as "Unknown" or "Suspected" unless clear evidence shows otherwise.
- 10. Billboards. Use water safety billboards along entrance roads to recreation areas as a static way of delivery important messages to visitors entering your sites. Most states have an Association of Outdoor Advertisers that are willing to assist non-profit and government organizations in developing billboards at minimal or no costs for the promotion of public safety along state highways and interstates.
- 11. Banners. Banners that state facts outlining consequences of risk, can be especially effective when placed in conjunction with life jacket loaner stations or at high traffic areas such as boat ramps. Use of the Life Jackets Worn...Nobody Mourns campaign messaging on banner is an effective way to engage personal emotions that may lead to behavioral changes.

- 12. Door Mats. Water safety messages can be incorporated into carpet mats are effective attentiongetters when placed in various locations such as visitor centers, project offices, events and/or loaned to local businesses.
- 13. NRRS Receipt Messages. National Recreation Reservation Service (NRRS) receipts have space for messages. Use that space to include key safety tips for your visitors. For example, "Buckle Up - Life Jackets and Seat Belts Save Lives" or "Life Jackets Worn...Nobody Mourns – Learn more at PleaseWearIt.com".
- F. <u>Visitor Assistance & Regulations Goal</u>. Initiate visitor assistance measures and local regulations under Title 36, 327.12a posted restrictions authority that supports public fatalities reduction.

**Strategy**: Analyze statistical trends to identify local issues and use visitor assistance measures to accomplish this goal.

# MSC, District and Field-level Actions:

- Conduct Vessel Safety Checks (VSC) in cooperation with the U.S. Coast Guard Auxiliary (USCG-Aux) these can be performed through local agreements with USCG-Aux. In some regions, local or state inspection programs have been utilized by USACE staff for basic boating safety checks for vessel equipment. These types of inspections generally are conducted at project ramps before boats are launched. National Safe Boating Week, which is typically held the week prior to Memorial Day, is a great time to conduct these inspections since it is early in the season.
- 2. Title 36 posted restrictions have been successful in controlling risk behaviors or problematic activities. District commanders have the authority to establish their own regulations under Title 36, CFR 327.12(a), posted restrictions. Some examples of effective use of posted restrictions include, but are not limited to, kite tubing policy, life jacket wear policies, boat rafting policy, alcohol bans and beach restrictions.
- 3. On the water presence of USACE park rangers conducting routine boat patrols is an effective visitor assistance tool for public safety. In addition to being available for public assistance, USACE rangers can issue safety equipment inspections, as well as provide personal delivery of safety tips and materials to the boating public.
- 4. Incorporate requirements that promote safety measures into Special Use and Event permits that are issued at the project level. For example, require life jackets be worn during fishing tournaments; while some tournaments already have that requirement, others don't think to include it. Alcohol bans have been introduced at several USACE facilities, especially for specific areas, such as beaches or day use areas. Work with marina concessionaires to seek assistance in promoting water safety messages regarding alcohol.
- 5. Explore the possibilities of working with local law enforcement agencies (city, county, and state) to adopt all or portions of Title 36 rules and regulations as part of their own regulations. These agencies have the same public safety responsibilities and generally see value in working regulations that are the same or support federal regulations.
- G. <u>Recreation Facility and Equipment Management Goal</u>. Maintain USACE facilities and equipment in a manner that maximizes our efforts to reduce public fatalities.

**Strategy**: Seek improvements to facilities and equipment we manage to assist in accomplishing this goal.

#### **NOC Actions:**

1. The NOC will work with the National Sign MCX and Sign Advisory Work Group to develop water safety signs associated with the national campaigns that projects can purchase.

#### MSC, District and Field-level Actions:

- 1. Establish on-site life jacket loaner program or implement effective changes that will improve on existing programs. Follow life jacket loaner program guidelines published by NOC in 2011; they establish minimally acceptable standards for design, construction, maintenance, public information and program implementation for effective life jacket loaner stations. To obtain life jackets work with local water safety partners, community organizations, safety councils or apply for life jacket donation programs (e.g. BoatUS, SeaTow). CECW-CO memorandum, dated 23 July 2010, subject: Life Jacket Loaner Program Policy and the 2011 Life Jacket Loaner Program Guidelines are on the NRM Gateway.
- 2. Inspect beaches annually, and/or as deemed necessary, to eliminate underwater obstructions and hazards. Beaches should be established in accordance with the criteria in EM 1110-1-400, Recreation Facility and Customer Service Standards, dated 1 Nov 2004.
- 3. Posted beach rules should be placed at all entrances to designated swimming areas. Safety messaging should be posted separated from beach rules to avoid customer confusion over actual regulations. Signs such as "No Lifeguards", "No Diving" and "Watch Your Children" should be displayed as necessary.
- 4. Buoys that display water safety messaging can be effective tools, as long as they don't undermine the safety intent. For instance, marking an area that has experienced a high number of fatalities may inadvertently create an attractive nuisance that encourages others to swim to it, risking exceeding their abilities.
- 5. Place water safety messages on sidewalks at beaches, boat ramps, or even on grass and concrete portions of our dams. A stencil with a water safety message can be purchased from the National Safe Boating Council or be custom designed locally.
- 6. Provide emergency rescue equipment, such as ring buoys a throw bag and rope and reach poles at designated beaches, when appropriate and at reasonable intervals in beach areas. EM 1110-1-400 provides further guidance on this type of equipment, and states that provision of such is optional.
- 7. Side Scan Sonar and Remotely Operated Underwater Vehicle (ROV) are valuable search and recovery underwater tool during any suspected or known drowning. The use of these devices can expedite recovery, adding to the peace of mind for family members who have had to endure longer recovery methods in the past.
- 8. Vehicle/Vessel Markings. A variety of water safety messages can be incorporated into decals, magnets or vinyl wraps for use on project vehicles and vessels. GSA Civil Works Vehicle Public Safety Marking Guidance Memo, 28 June 2013 gives us the authority to place public safety vinyl wraps on GSA vehicles. Memo is located in the NRM Gateway water safety section under Policy and Procedures.
- 9. Bulletin Boards. Water safety posters should be placed on bulletin boards located throughout USACE recreation areas, especially those near water, i.e. boat ramps, beaches, marinas, etc.
- **H.** <u>Partnering/Coordination with Area Businesses Goal</u>: Maximize the use of partnerships that require minimal effort and expenditure that can result in a tremendous impact in reducing public fatalities.

**Strategy**: Increase the use of existing partnerships and explore the development of new partnerships with local businesses and agencies with similar missions to accomplish this goal.

# **HQ** Actions:

- 1. NOC and Partnership Advisory Committee should revisit all existing national agreements to re-engage viable partners, improve on working relationships and determine methods to facilitate working relationships on regional and local levels.
- 2. NOC and Partnership Advisory Committee will work with boat and life jacket manufacturers at the national level to encourage joint promotion of water safety initiatives and public education on equipment changes that improve on personal safety.
- 3. NOC will continue working with agencies (i.e. BoatUS Foundation, National Safety Boating Council) and finding other means to provide life jackets for the life jacket loaner program.
- 4. NOC will engage with the U.S. Army, particularly the Army Safety Center, to utilize their authorities to promote recreation safety.
- 5. NOC will work with federal partners through the Interagency Working Group for Visitor Safety on Federal Lands and Waterways to share processes, resources and studies that enhance public recreation safety on a national level.
- 6. NOC/Bilingual subcommittee will seek out non-traditional partners, particularly in the Hispanic communities, to assist in public recreation safety promotion with non-English-speaking visitors.
- 7. NOC will partner with organizations that conduct fishing tournaments on a national level to promote public recreation safety.

#### MSC, District and Field-level Actions:

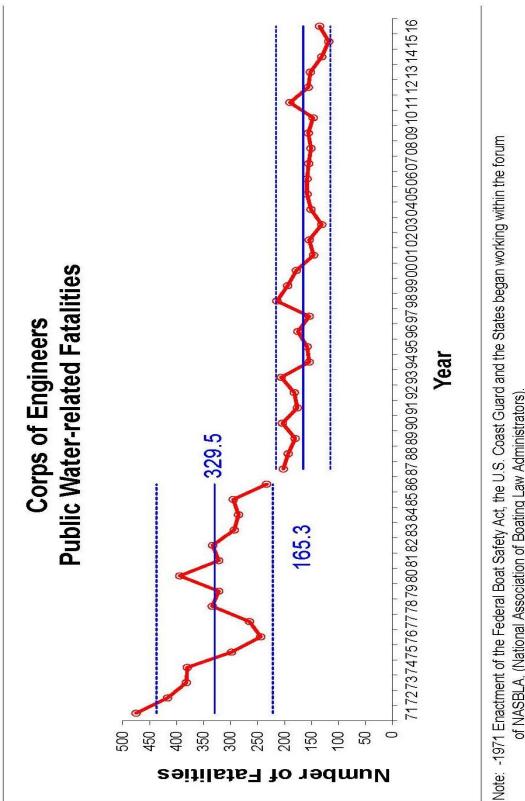
- 1. Assure that all those working partnerships that enhance public safety are thoroughly familiar with the Contributions, Fundraising and Recognitions Reference Guide on the NRM Gateway. All district contribution and donor recognition plans should include water safety.
- 2. Company Safety Meetings. Contact businesses and work sites in your community to schedule a water safety program as a special session or during one of their routine staff safety meetings. A good time to get this scheduled is just before the recreation season begins in your region.
- 3. Display water safety messaging in innovative ways; i.e., provide advertising slicks available from the NOC or created locally, to a variety of businesses for use on bank envelopes, restaurant placemats, ice bags, milk cartons and grocery bags.
- 4. Provide Life Jackets Worn...Nobody Mourns water safety video PSAs to community movie theaters for use in projected pre-show previews and displays.
- 5. Place safety banners at major approaches to projects and at access points, as well as on project dams during holiday weekends. Partner with local businesses, such as insurance or soft drink companies for these types of special displays.
- 6. Display "avenue banners", approximately 60" x 30" in size, on light poles along busy roadways. Use colorful banners that are effective in attracting attention. Double-sided banners can display both a welcome message as well as a simple and short safety-related message. Such banners are easily changed to reflect seasonal messages. Other great locations for such displays are along the dam roadway, boat ramps, and day use/picnic areas.
- 7. Work with local businesses for permission to post seasonal safety display boards, such as large department stores. Provide the business with double-sided safety boards, about 3' X 4' in size, and request to have them suspended from the ceilings near popular holiday product displays, or in store sections, such as sporting goods. The NOC developed "Size it Right" life jacket poster and brochure or similar products can be provided to vendors where life jackets are sold.
- 8. Contact area businesses with marquees on an annual basis and request that key safety messages be displayed throughout the recreation season, or especially during busy holiday weekends or National Safe Boating Week. Changeable marquee signs can be purchased and

used by project staffs for posting important project information, as well as recreation safety messages.

- 9. Similar to static marquee signs discussed in item 7, electronic message boards are also great for displaying timely safety messages; these are devices commonly used by financial institutions, restaurants, and other businesses. Portable highway electronic message boards are also being utilized to place water safety messages on.
- 10. Work with schools and local businesses to conduct a grocery store paper bag project in which students "decorate" paper grocery bags from local grocery stores with water safety pictures and messages. The bags are returned to the stores and used for bagging customers' groceries. Each customer leaves the store with great water safety messages produced by kids from their own community.
- 11. "I Got Caught with my Life Jacket" campaigns target visitors who were 'caught being safe' by park rangers and rewarded for their actions with nominal value prizes, such as donated ice cream treats, shopping discounts or t-shirts, provided by local businesses. These types of campaigns offer positive opportunities to reward good behavior. They are especially popular during busy weekends, Memorial Day through Labor Day. As part of the campaign, pictures of those caught with their life jackets can be published in weekly newspapers, further promoting the campaign. If you catch an adult wearing a life jacket you can give them a free day use fee or camping pass good for one day. EC 1130-2-550 (30 Nov 2015) Chapter 9, Section 20 Safety Certificates gives us the authority to give out free day use or camping certificates.
- 12. Work with marina concessionaires to share safety information on a variety of topics such as carbon monoxide poisoning and rental boat safety <u>http://rentalboatsafety.com/</u>. Provide safety promotional materials to post and distribute at those locations.
- 13. Partner up with local pizza restaurants and convenience stores, providing water safety messages on stickers that can be applied to pizza boxes. Stickers can provide clever messaging, such as "Any way you slice it: Make SAFETY a 'Pizza' your life, Buckle-Up Seatbelts and Life Jackets Save Lives".
- 14. Work with local electric and utility companies and other business that send out monthly bills. Ask to include water safety messages on company billing inserts, especially during peak recreation season. They may also print large ads in magazines and be willing to place different safety messages according to the season.
- 15. Scrolling electronic safety messages can be placed on gas pumps usually for no cost. A sample message that is usually accepted is "Buckle Up. Life Jackets and Seat Belts Save Lives". Companies may also print the message on their credit card receipts.
- 16. Purchase a few self-inking stamps with water safety messages to use on outgoing publications and envelopes. Distribute these stamps to campground hosts and local businesses (i.e. banks), so that all materials they distribute can be stamped with a safety message.
- 17. Work with internal partners (PAO, SO) and continue to conduct events and initiatives such as Wear a Life Jacket to Work Day and Water Safety Blitz events to promote water safety on all levels.
- 18. Work with National volunteer program to recruit and provide incentives to maintain volunteers.
- 19. Utilize Student Conservation Association Public Safety Intern training to ensure that interns, volunteers, and employees have the skills to effectively interpret boating and water safety. Training materials are available in the NRM Gateway water safety section under Training Materials.
- 20. Partner with organizations that conduct fishing tournaments on a regional and local level to promote public recreation safety.
- 21. Form local water safety councils or task forces to expand on relationships with local rescue

and law enforcement agencies. Formalize existing relationships into councils or search and rescue organizations supportive of public safety, including preventive approaches to water safety and collaboration during recreation emergencies. Seek out non-profit organizations who are eligible for grants and can provide tax deductions to donors for their contributions.

- 22. Cooperating Associations are non-profit, 501(c)3 organization partners who can benefit the public and the USACE in a variety of ways. These associations work with the USACE to support all of our educational and natural resource management initiatives, including boating and water safety promotion.
- 23. Collaborate with community and regional agencies/organizations. Projects should maintain current listings of all applicable state, regional and local agencies that are involved in promoting safety issues to include names of contact persons, addresses, and phone numbers. Sharing resources such as printed materials and joint participation in events or education programs can assure wider distribution of information. At a minimum, a meeting should be held at the beginning of each recreation season to discuss shared goals, jurisdictional issues and other plans with these agencies. Suggested agencies include state departments of natural resources/conservation, water patrol, sheriff and police departments, highway patrol, search and rescue groups (civil defense, dive clubs), fire departments, emergency management agencies, U.S. Coast Guard, USCG-Aux, local water safety councils, Power Squadrons, hospitals, other medical facilities, ambulance services, county health departments, coroners, Federal Magistrate, U.S. Marshal, District Attorney's, public health departments, American Red Cross, resort owners, marinas, and tourism offices.



# Appendix A USACE Public Water-related Fatalities Line Graph

of NASBLA, (National Association of Boating Law Administrators).

-1986 The Corps began promoting water safety nationwide through an annual, unified safety - education campaign.

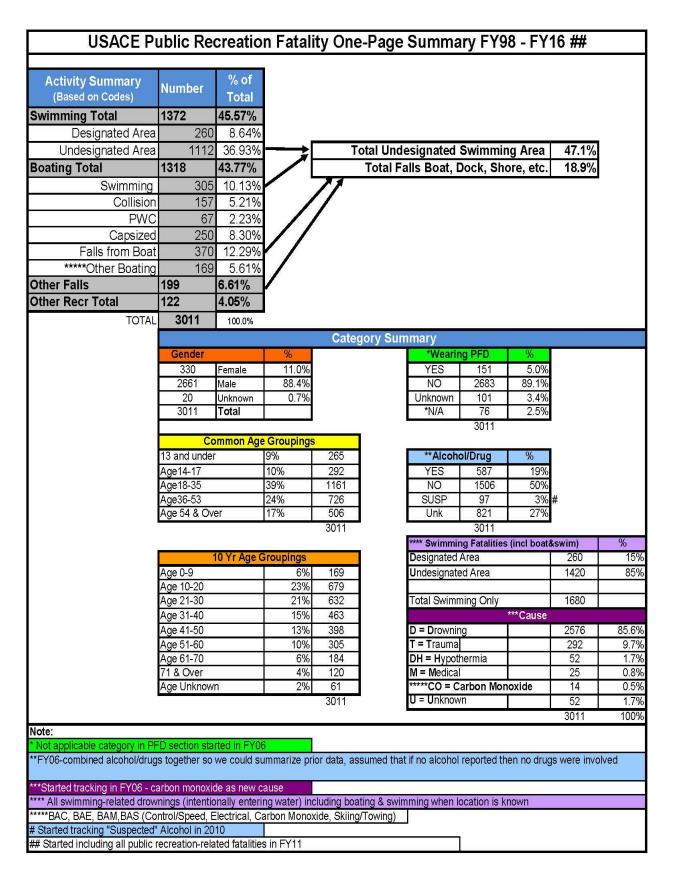
-1994 National Operations Center (NOC) for Water Safety established

-1998 NOC began quantifying public fatality data

Appendix B
Division Public Recreation Fatalities FY98-FY16 Spreadsheet

	lic Recreation	i atan	10	10-1																			
ision	District		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total	Ave
	D. #-1-	100	0	0	0	0			0	0	0	0	^		0	0	0	0	0	0	0		
and Ohio River	Buffalo	LRB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
wio RIV	Chicago	LRC LRE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	. 0	0
$\gamma_{O_{In}}$	Detroit Huntinaton	LRE	0 7	0	0	0 7	0	0	0	1 6	0	0	0	0	0	0 3	0 5	0 3	0	0 8	0 4	1 83	0
	Louisville	LRL	6	4	3	2	<u>10</u> 3	4	5	10	14	5 7	8	9	4	4	9	9	7	0 9	4	00 128	4
	Louisville			-		10	_	_			-		_		15			9				265	
	Nashville Pittsburah	LRN LRP	21 6	17	17	3	11 0	5	11 0	13 0	16 0	16	11 3	14 4	6	19	10 5	5	18	14 2	13	42	13 2
	TOTAL	LRP	40	29	2 25	ی 22	24	11	16	30	37	27	23	4 32	0 31	27	29	31	27	33	25	42 519	2
	TOTAL	LND	40	2.9	20	22	24	- 11	10	50	57	21	20	JZ	J	21	23	51	21	55	20	010	21
	Vicksburg	MVK	12	10	8	9	2	7	8	4	1	4	5	2	9	2	4	4	0	1	4	96	5
1 AV	Memphis	MVM	0	0	Ũ	0	0	0	Ũ	0	0	0	0	0	0	0	0	0	0	0	0	0	Ő
Jalley	New Orleans	MVN	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	3	0
	St. Paul	MVP	0	0	0	0	1	1	2	0	0	5	0	0	0	0	0	0	0	0	0	9	0
	Rock Island	MVR	1	5	0	0	1	2	1	2	8	3	2	0	1	0	2	3	5	2	2	40	2
	St. Louis	MVS	11	3	2	3	2	5	1	5	3	8	1	2	5	4	3	2	3	3	2	68	3
	TOTAL	MVD		18	10	12	6	15	12	11	12	20	8	4	15	8	10	9	8	6	8	216	1
													-										
	Baltimore	NAB	1	1	0	0	0	0	2	3	1	2	1	0	1	2	4	2	2	2	2	26	1
dic.	New England	NAE	0	1	0	0	1	1	0	1	2	0	0	0	1	2	0	0	1	0	3	13	0
antic	New York	NAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Ő
	Norfolk	NAO	0	0	Û	0	0	0	0	0	1	0	0	0	0	0	Û	0 0	0	0	0	1	Ő
	Philadelphia	NAP	0	3	1	2	0	0	0	1	0	1	0	1	0	2	Û	0	0	0	0	11	0
	TOTAL	NAD	1	5	1	2	1	1	2	5	4	3	1	1	2	6	4	2	3	2	5	51	2
				1								ļ											
	Kansas City	NWK	6	14	4	2	9	9	8	11	12	5	5	7	9	7	6	16	10	6	5	151	7
me	Omaha	NWO	3	8	8	3	5	1	3	2	3	3	4	2	1	4	9	7	3	8	3	80	4
<i>t</i> o.	Portland	NWP	8	2	4	0	1	5	2	4	3	5	4	5	2	1	2	1	0	4	2	55	2
larn	Seattle	NWS	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0
	Walla Walla	NWW	0	2	2	2	1	1	2	5	7	1	2	3	4	2	2	1	1	0	1	39	2
	TOTAL	NWD	17	27	18	7	16	16	15	22	25	14	15	17	16	14	19	25	15	18	11	327	1
Jcean													- 200										
JCD.	Alaska	POA	4	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	6	0
	TOTAL	POD	4	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	6	0
										-		÷											
121	Charleston	SAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ntic	Jacksonville	SAJ	0	2	3	0	0	0	2	_ 2_	0	0	2	5	1	2	1	1	1	4	2	28	1
<b>,</b>	Mobile	SAM	19	33	15	13	20	16	22	18	18	24	23	16	17	31	21	17	24	14	22	383	2
South Atlantic	Savannah	SAS	13	12	7	10	9	6	10	3	4	8	8	3	10	9	8	5	7	7	7	146	Ī
	10 Charlin who we	SAW	11	4	10	6	8	5	8	1	5	4	9	10	2	5	3	6	4	3	3	107	Ę
	Wilmington	-				29	37	27	42	24	27	36	42	34	30	47	33	29	36	28	34	664	3
	TOTAL	SAD	43	51	35	23	_	-		_											1		
_	TOTAL					101	1	0					2	0	0	2	2	1	0	0	1	- 27	1
_	TOTAL Albuquerque	SPA	2	2	3	4	1	0	4	2	1	0	2	0	0	2	2	1	0	0	1	27	
_	TOTAL Albuquerque Sacramento	SPA SPK	2 5	2	3	4	1	5	4	2 5	1	0	0	4	3	8	3	2	2	1	1	68	
_	TOTAL Albuquerque Sacramento Los Angeles	SPA SPK SPL	2 5 0	2 1 0	3 2 0	4 8 0	1 7 0	5 0	4 6 0	2 5 0	1 2 1	0 4 0	0 0	4 0	3 0	8 0	3 0	2	2 0	1 0	0	68 1	3
	TOTAL Albuquerque Sacramento Los Angeles San Francisco	SPA SPK SPL SPN	2 5 0 5	2 1 0 0	3 2 0 3	4 8 0 1	1 7 0 1	5 0 1	4 6 0 1	2 5 0 1	1 2 1 2	0 4 0 1	0 0 0	4 0 6	3 0 0	8 0 0	3 0 0	2 0 1	2 0 0	1 0 1	0 0	68 1 24	3 (
_	TOTAL Albuquerque Sacramento Los Angeles	SPA SPK SPL	2 5 0 5	2 1 0	3 2 0	4 8 0	1 7 0	5 0	4 6 0	2 5 0	1 2 1	0 4 0	0 0	4 0	3 0	8 0	3 0	2	2 0	1 0	0	68 1	3 (
iffe	TOTAL Albuquerque Sacramento Los Angeles San Francisco TOTAL	SPA SPK SPL SPN SPD	2 5 0 5 <b>12</b>	2 1 0 0 <b>3</b>	3 2 0 3 <b>8</b>	4 8 0 1 <b>13</b>	1 7 0 1 9	5 0 1 <b>6</b>	4 6 0 1 11	2 5 0 1 <b>8</b>	1 2 1 2 6	0 4 0 1 5	0 0 0 <b>2</b>	4 0 6 <b>10</b>	3 0 0 <b>3</b>	8 0 0 <b>10</b>	3 0 0 5	2 0 1 <b>4</b>	2 0 0 <b>2</b>	1 0 1 <b>2</b>	0 0 1	68 1 24 120	3 () ()
ciffe	TOTAL Albuquerque Sacramento Los Angeles San Francisco TOTAL Fort Worth	SPA SPK SPL SPN SPD SWF	2 5 0 5 <b>12</b> 35	2 1 0 0 <b>3</b> 30	3 2 0 3 <b>8</b> 43	4 8 0 1 <b>13</b> 30	1 7 0 1 <b>9</b> 26	5 0 1 <b>6</b> 22	4 6 0 1 11 23	2 5 0 1 <b>8</b> 23	1 2 1 2 6	0 4 0 1 5 16	0 0 0 <b>2</b> 33	4 0 6 <b>10</b> 30	3 0 0 <b>3</b> 27	8 0 0 <b>10</b> 40	3 0 5 25	2 0 1 <b>4</b> 24	2 0 0 <b>2</b> 26	1 0 1 <b>2</b> 14	0 0 1 25	68 1 24 120 515	3 () 1 () 2
cific	TOTAL Albuquerque Sacramento Los Angeles San Francisco TOTAL Fort Worth Galveston	SPA SPK SPL SPN SPD SWF SWF	2 5 0 5 <b>12</b> 35 0	2 1 0 3 30 0	3 2 0 3 <b>8</b> 43 0	4 8 0 1 <b>13</b> 30 0	1 7 0 1 <b>9</b> 26 0	5 0 1 <b>6</b> 22 0	4 6 0 1 <b>11</b> 23 0	2 5 0 1 <b>8</b> 23 0	1 2 1 2 6 23 0	0 4 0 1 <b>5</b> 16 0	0 0 2 33 0	4 0 6 <b>10</b> 30 0	3 0 3 27 0	8 0 10 40 0	3 0 5 25 0	2 0 1 <b>4</b> 24 0	2 0 2 2 26 1	1 0 1 <b>2</b> 14 0	0 0 1 25 0	68 1 24 120 515 1	3 0 1 6 2 0
iffe	TOTAL Albuquerque Sacramento Los Angeles San Francisco TOTAL Fort Worth Galveston Little Rock	SPA SPK SPL SPN SPD SWF SWG SWL	2 5 0 5 <b>12</b> 35 0 17	2 1 0 3 30 0 15	3 2 0 3 <b>8</b> 43 0 9	4 8 0 1 <b>13</b> 30 0 10	1 7 0 1 <b>9</b> 26 0 20	5 0 1 <b>6</b> 22 0 14	4 6 1 11 23 0 18	2 5 0 1 <b>8</b> 23 0 17	1 2 1 2 6 23 0 10	0 4 0 1 <b>5</b> 16 0 13	0 0 2 33 0 3	4 0 6 <b>10</b> 30 0 15	3 0 3 27 0 7	8 0 10 40 0 11	3 0 5 25 0 15	2 0 1 4 24 0 19	2 0 2 26 1 17	1 0 1 <b>2</b> 14 0 6	0 0 1 25 0 16	68 1 24 120 515 1 252	3 ( 2 ( 1
sche	TOTAL Albuquerque Sacramento Los Angeles San Francisco TOTAL Fort Worth Galveston Little Rock Tulsa	SPA SPK SPL SPN SPD SWF SWG SWG SWL	2 5 0 5 <b>12</b> 35 0 17 21	2 1 0 3 30 0 15 16	3 2 0 3 <b>8</b> 43 0 9 28	4 8 0 1 <b>13</b> 30 0 10 21	1 7 0 1 <b>9</b> 26 0 20 15	5 0 1 <b>6</b> 22 0 14 19	4 6 0 1 <b>11</b> 23 0 18 12	2 5 0 1 <b>8</b> 23 0 17 18	1 2 1 2 6 23 0 10 14	0 4 0 1 <b>5</b> 16 0 13 20	0 0 2 33 0 3 24	4 0 6 <b>10</b> 30 0 15 13	3 0 3 27 0 7 16	8 0 10 40 0 11 34	3 0 5 25 0 15 17	2 0 1 <b>4</b> 24 0 19 19	2 0 2 26 1 17 7	1 0 1 <b>2</b> 14 0 6 12	0 0 1 25 0 16 14	68 1 24 120 515 1 252 340	: ( 2 ( 1 1
scific stern	TOTAL Albuquerque Sacramento Los Angeles San Francisco TOTAL Fort Worth Galveston Little Rock	SPA SPK SPL SPN SPD SWF SWG SWL	2 5 0 5 <b>12</b> 35 0 17 21	2 1 0 3 30 0 15	3 2 0 3 <b>8</b> 43 0 9	4 8 0 1 <b>13</b> 30 0 10 21	1 7 0 1 <b>9</b> 26 0 20	5 0 1 <b>6</b> 22 0 14	4 6 1 11 23 0 18	2 5 0 1 <b>8</b> 23 0 17	1 2 1 2 6 23 0 10	0 4 0 1 <b>5</b> 16 0 13	0 0 2 33 0 3	4 0 6 <b>10</b> 30 0 15	3 0 3 27 0 7	8 0 10 40 0 11	3 0 5 25 0 15	2 0 1 4 24 0 19	2 0 2 26 1 17	1 0 1 <b>2</b> 14 0 6	0 0 1 25 0 16	68 1 24 120 515 1 252	3 ( 2 ( 1 1
ciffe	TOTAL Albuquerque Sacramento Los Angeles San Francisco TOTAL Fort Worth Galveston Little Rock Tulsa	SPA SPK SPL SPN SPD SWF SWG SWG SWL	2 5 0 5 <b>12</b> 35 0 17 21 <b>73</b>	2 1 0 3 30 0 15 16	3 2 0 3 <b>8</b> 43 0 9 28	4 8 0 1 <b>13</b> 30 0 10 21	1 7 0 1 <b>9</b> 26 0 20 15	5 0 1 <b>6</b> 22 0 14 19	4 6 0 1 <b>11</b> 23 0 18 12	2 5 0 1 <b>8</b> 23 0 17 18	1 2 1 2 6 23 0 10 14	0 4 0 1 <b>5</b> 16 0 13 20	0 0 2 33 0 3 24	4 0 6 <b>10</b> 30 0 15 13	3 0 3 27 0 7 16	8 0 10 40 0 11 34	3 0 5 25 0 15 17	2 0 1 <b>4</b> 24 0 19 19	2 0 2 26 1 17 7	1 0 1 <b>2</b> 14 0 6 12	0 0 1 25 0 16 14	68 1 24 120 515 1 252 340	2 ( 2 ( 1 1 5
	TOTAL Albuquerque Sacramento Los Angeles San Francisco TOTAL Fort Worth Galveston Little Rock Tulsa TOTAL	SPA SPK SPL SPN SPD SWF SWF SWG SWL SWT SWD	2 5 0 5 <b>12</b> 35 0 17 21 <b>73</b>	2 1 0 3 3 30 0 15 16 61 194	3 2 0 3 <b>8</b> 43 0 9 28 <b>80</b> 178	4 8 0 1 <b>13</b> 30 0 10 21 <b>61</b> 146	1 7 0 1 9 9 26 0 20 15 61 154	5 0 1 6 22 0 14 19 55 131	4 6 0 1 11 23 0 18 12 53	2 5 0 1 <b>8</b> 23 0 17 18 <b>58</b> 158	1 2 6 23 0 10 14 47 158	0 4 0 1 <b>5</b> 16 0 13 20 <b>49</b>	0 0 2 33 0 3 24 <b>60</b> 151	4 0 6 <b>10</b> 30 0 15 13 <b>58</b> 156	3 0 3 27 0 7 16 50	8 0 10 40 0 11 34 85	3 0 5 25 0 15 17 57	2 0 1 4 24 0 19 19 19 62	2 0 2 26 1 17 7 <b>51</b>	1 0 1 2 14 0 6 12 32	0 0 1 25 0 16 14 55	68 1 24 120 515 1 252 340 1108	1 3 0 1 1 2 0 0 1 1 1 5 5 1 5 5 <b>Ave</b>
	TOTAL Albuquerque Sacramento Los Angeles San Francisco TOTAL Fort Worth Galveston Little Rock Tulsa TOTAL	SPA SPK SPL SPN SPD SWF SWF SWG SWL SWT SWD	2 5 0 5 <b>12</b> 35 0 17 21 <b>73</b> 214	2 1 0 3 3 30 0 15 16 61 194	3 2 0 3 8 8 4 3 0 9 9 2 8 0 9 2 8 0 9 2 8 0 9 2 8 0 9 2 8 0 2 8 2 8 0 2 3 3 8 8 2 3 3 8 8 9 2 2 0 3 3 8 8 8 8 8 8 8 9 9 9 9 9 9 9 9 9 9 9	4 8 0 1 <b>13</b> 30 0 10 21 61 146 2001	1 7 0 1 9 9 26 0 20 15 <b>61</b> 154 2002	5 0 1 6 22 0 14 19 55 131	4 6 0 1 11 23 0 18 12 53 151 2004	2 5 0 1 <b>8</b> 23 0 17 18 <b>58</b> <b>58</b> <b>2005</b>	1 2 1 2 6 6 23 0 10 14 4 7 47 158 2006	0 4 0 1 5 5 7 6 0 13 20 49 49 2007	0 0 2 33 0 3 24 <b>60</b> 151	4 0 6 10 30 0 15 13 58 156 2009	3 0 3 27 0 7 16 50 147	8 0 10 40 0 11 34 85 197	3 0 5 25 0 15 17 57 57	2 0 1 4 24 0 19 19 19 62 162	2 0 2 26 1 17 7 51 51 142 2014	1 0 1 2 14 0 6 12 32 32 121 2015	0 0 1 25 0 16 14 55 139 2016	68 1 24 120 515 1 252 340 1108 3011	2 ( 2 ( 1 1 5 5

Appendix C USACE Fatality Statistics FY98-16 Summary



# Appendix D USACE Fatality Statistics FY16 Summary

U	SACE	Public	Recreation Fata FY16 Da	-	Page	Summa	ry
Activity Summary (Based on Codes)	FY16	FY16 % of Total				Fatalities	By Division
Swimming Total	50	36.0%				LRD 25	17.98%
Designated Area	4	2.9%				MVD 8	5.76%
Undesignated Area	46	101 101 101 101 101 101 101			FY16	NAD 5	3.60%
	77	55.4%	Total Undesignated Sw	imming Area	50%	NWD 11	7.91%
	N 10	and a second the second		inining Area	5070		51 082025-00-0800250
Swimming	23	16.5%				SAD 34	24.46%
Collision	5	3.6%				SPD 1	0.72%
PWC	3	2.2%				SWD 55	39.57%
Capsized		10.1%				Districts wit	h most fatalities
Falls from Boat	21	15.1%	*		FY16	SWF 25	17.99%
*****Other Boating	11	7.9%	Total Falls Boat, Sh	nore, etc.	21%	SAM 22	15.83%
Other Falls Total	8	5.8%				SWL 16	11.51%
Other Recreation	4	2.9%				SWT 14	10.07%
TOTAL	139					LRN 13	9.35%
		Pub	lic Recreation Fatality	v Data Sumn	narv		0.0070
Gender	FY	/16		earing PFD		Y16	
Female	12	8.6%		YES	14	10.1%	
Male	127	91.4%		NO	122	87.8%	
Unknown	0	0.0%		Unknown	0	0.0%	
Total	139			*N/A	3	2.2%	
	-	4.0				140	
10 yr Age Grpgs Age 0-9	1.4%	2 2		Alcohol/Drug YES	14	<b>Y16</b> 10.1%	
Age 10-20	23.0%	32		NO	46	33.1%	
Age 21-30	16.5%	23		#SUSPECTED	17	12.2%	
Age 31-40	15.1%	21		Unknown	62	44.6%	
Age 41-50	18.0%	25					
Age 51-60	12.9%	18	***	*Swimming Fatalit	ies	FY16	
Age 61-70	7.2%	10	De	signated Area	4	5.3%	
71 & Over	5.8%	8		designated Area	72	94.7%	
Age Unknown Total	0.0%	0 139		otal	76	I	
i Utai		109		Cause		Y16	
Common Age Grps	FY	(16	D =	= Drowning	114	82.0%	
13 & under	1.4%	2		Trauma	21	15.1%	
Age14-17	12.2%	17		I = Hypothermia	3	2.2%	
Ages 18-35	33.8%	47		= Medical	0	0.0%	
Ages 36 53	28.8%	40		CO=Carbon	4	0.7%	
Ages 36-53 Age 54 +	28.8%	40 33		onoxide = Unknown	1	0.7% 0.0%	
drugs were involved ***Started tracking in	cohol/drugs I FY06 - car	together so bon monoxi	we could summarize with p de as new cause				androd onter and in the loop something of the second
			onally entering water) includ Electrical, Carbon Monoxide			when locatio	DIT IS KNOWN
# Started tracking "S				s sking/Towing	<u>)</u>	1	
## Started including	all public re	creation-rel:	ated fatalities in FY11			1	
otarica nordany		of cation -i cit					