



**OFFICE OF THE STATE FIRE MARSHAL  
STATEWIDE TRAINING AND EDUCATION ADVISORY COMMITTEE  
DEPARTMENT OF FORESTRY AND FIRE PROTECTION**

PO Box 944246  
Sacramento, CA 94244-2460  
Phone: (916) 445-8444  
Website: [www.fire.ca.gov](http://www.fire.ca.gov)



**Date:** April 12, 2016

Attachment 6

**To:** Ronny J. Coleman, Chairman  
Statewide Training and Education Advisory Committee  
c/o State Fire Training

**From:** Mike Richwine, Assistant State Fire Marshal

**Subject/Agenda Action Item:** Water Rescue Curriculum

**Recommended Actions:** Information/Discussion

**Background Information:**

The current catalogue of State Fire Training water rescue classes is dated and, with the exception of Open Water Rescuer-Basic (OWR-B), is exclusively applicable to the River and Flood environment. Advances in equipment, training, and tactics over the last twenty years have rendered elements of the current courses obsolete and in need of a rewrite. This has become critical as instructors are faced with a perceived need to “teach outside the lines” of dated SFT instructor guides in order to keep their courses relevant. Recognizing this fact, OES sponsored a River and Flood water rescue working group in 2013 to conduct a top to bottom overhaul of the existing courses. Separately, the explosive growth of grant funded, large rescue boats operating in the littoral regions of the State has generated demand for training in disciplines related to “open water” or Surface operations. The current absence of standardized training has left departments throughout the state scrambling to create in house on-the-job training programs or contracting for the delivery of non-standardized proprietary training from a variety of vendors. This has degraded regional inter-operability and created a barrier to entry in the Surface Water Rescue discipline for agencies that do not have a legacy program. In the SF Bay Area, this demand is currently being satisfied by OWR-B and two courses developed by the Bay Area SAR Council which were recently approved by OES for pilot offering.

Recognizing the commonality between their efforts and an opportunity for collaboration, the OES sponsored River and Flood working group and Bay Area SAR Council have developed a proposed comprehensive rewrite of State Fire Training’s water rescue catalog to update the existing River and Flood courses and incorporate Surface courses. This effort took on a greater urgency as the anticipated onset of an “El Nino” weather pattern has generated intense interest in River and Flood operations and associated equipment throughout the state. The stated goal of the working group is to standardize and update water rescue curriculum while increasing access to relevant courses throughout the state.

**Analysis/Summary of Issue:**

The proposed courses represent a comprehensive revamping of the Water Rescue course catalogue and are relevant throughout the state. They represent the latest industry standards and were developed by a cadre of Subject Matter Experts with years of teaching and operational experience. The courses ensure

the regional and state wide inter-operability that is critical to success on expanded incidents and allows seamless integration of water rescue teams from throughout the state. Further, integration of a common Rescue Boat Operations course is in keeping with streamlining efforts underway with the recent updates to the Fire Officer and Chief Officer Certification tracks and reduces redundancy while minimizing student time and expense. Lastly, the current courses do not conform to the NFPA Awareness-Operations-Technician-Specialist format as adopted by State Fire Training and the new courses are drawn directly from NFPA 1006 Standard for Technical Rescuer Professional Qualifications and NFPA 1670 Standard on Operations and Training for Technical Search and Rescue Incidents.

The water rescue courser information is listed here and the program is intended to be modular to meet the operational needs of each individual fire department according to their water rescue hazards. As previously mentioned the 16 hour Rescue Boat Operations Class will be a standard training program across the this discipline.

**The proposed courses are:**

**River and Flood Rescue Awareness** is a new 4-hour self-paced course that prepares a firefighter to safely operate from the shore during water rescue emergencies. The goal is educate the student about; the dangers of working near dynamic water, the personal protective equipment for a shore based rescuer, the techniques used to accomplish a water rescue from the shore without entering the water. This class is delivered remotely via web enabled distance learning.

**River and Flood Rescue Operations** is an updated 24-hour course that is meant to prepare a firefighter to safely operate in dynamic water during water rescue emergencies. The topics covered are; personal protective equipment for the rescuer, reading the water and understanding the movement of dynamic water, self-rescue skills, communication methods, basic victim rescue skills. This class is delivered in the classroom and at a suitable river or stream location.

**Rescue Boat Operations** is a new 16-hour course that is meant to prepare a firefighter for technician level rescue boat courses utilizing inflatable rescue boats (IRB) and flat bottomed rigid hulled rescue boats (Jon Boats). The topics covered are: launch and recovery, small boat handling, maintenance and equipment selection. This class is delivered in the classroom and at a suitable field environment with protected static water. This class is intended to be a universal pre-requisite course which prepares students for River and Flood and Surface Rescue Boat Technician courses.

**River and Flood Rescue Technician** is a new 24-hour class that is meant to prepare a firefighter to safely operate in dynamic water and to mitigate complex rescue scenarios during a water rescue emergency. The topics covered are; basic and advanced searches, victim rescue from mid river entrapments, night time and low light operations, technical rope systems for victim retrieval, vehicles trapped in moving water and recreational boating accidents. This class is delivered in the classroom and at a suitable river or stream location.

**Surface Rescue Boat Technician** is a new 16-hour course that prepares firefighters to safely operate an IRB or Flat-Bottomed Rescue Boat in tidal and lake environments. Completion of Rescue Boat Operations is a prerequisite to taking this class. Topics covered are: launch and recovery, self-rescue, boat handling, victim recovery, basic maritime navigation and basic communications. This class is delivered in the classroom and a suitable surface water training location. In a 32-hour format, this class has been approved by OES for pilot offering in the SF Bay Area.

**River and Flood Motorized Rescue Boat Technician** is a new 24-hour class meant to prepare a firefighter to safely operate a boat in dynamic water that contains class III rapids with a current of greater than 2 knots. Completion of Rescue Boat Operations is a prerequisite to taking this class. The topics covered will be; loading and launching boats, advanced operations of a motorized boat in dynamic water, reading the water, advanced victim rescue, rescuer deployment and recovery. This class is delivered in the classroom and at a suitable river or stream location.

**River and Flood Non-Motorized Rescue Boat Technician** is a new 40-hour class meant to prepare a firefighter to safely operate a non-motorized boat or raft in dynamic water that contains class III and above rapids. The topics covered are reading water, paddle and oar commands, self-rescue, victim recovery, swimmer deployment and recovery, and advanced river skills. This class is delivered in the classroom and at a suitable river or stream location.

**Surface Rescue Boat Specialist** is a new 40 hour class meant to prepare a firefighter to safely operate a rigid hulled rescue boat from 18'-32' in coastal and lake environments. The topics covered are: launch and recover, boat handling, search patterns, use of advanced maritime electronics, rescue swimmer deployment and recovery, victim rescue, night operations, towing, advanced maritime navigation and communications. This class is delivered in the classroom and a suitable surface water training location. This class has been approved by OES for pilot offering in the SF Bay Area.

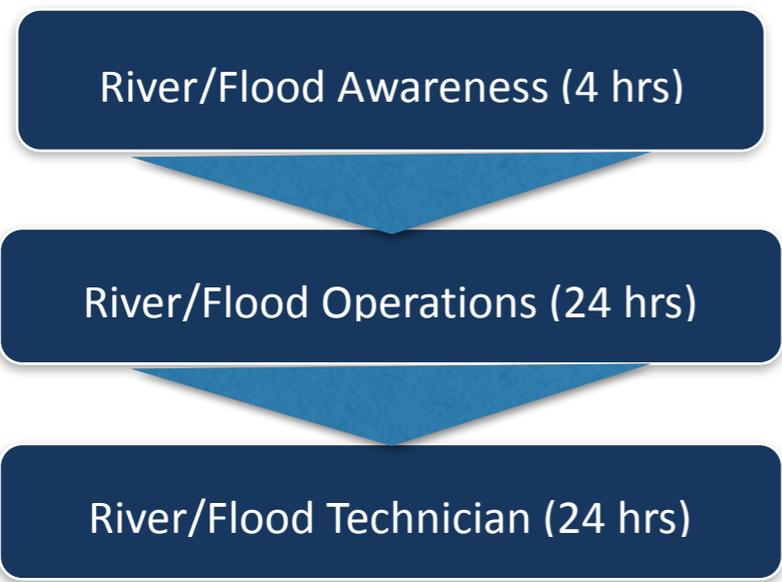
**Conclusions:** Demand for the River and Flood courses is anticipated to be state wide, while demand for Surface courses is anticipated to be localized to the coastal regions and major inland lakes. In the San Francisco Bay Area, (6) UASI funded offerings of OWR-B were filled with waiting lists in 2015. 2016 offerings of OWR-B, Rescue Boat Technician, and Rescue Boat Specialist are already full with waiting lists suggesting significant demand in littoral areas. The integration of combined, multi-discipline basic IRB operations instruction through the proposed Rescue Boat Operations course will reduce student time and participation costs. Further, SFT adoption will dramatically increase the ability of regional groups to pursue grant funding and will speed adoption throughout the state.

# Water Rescue Working Group Update Proposal

5 April 2016

# Non-Boat Classes

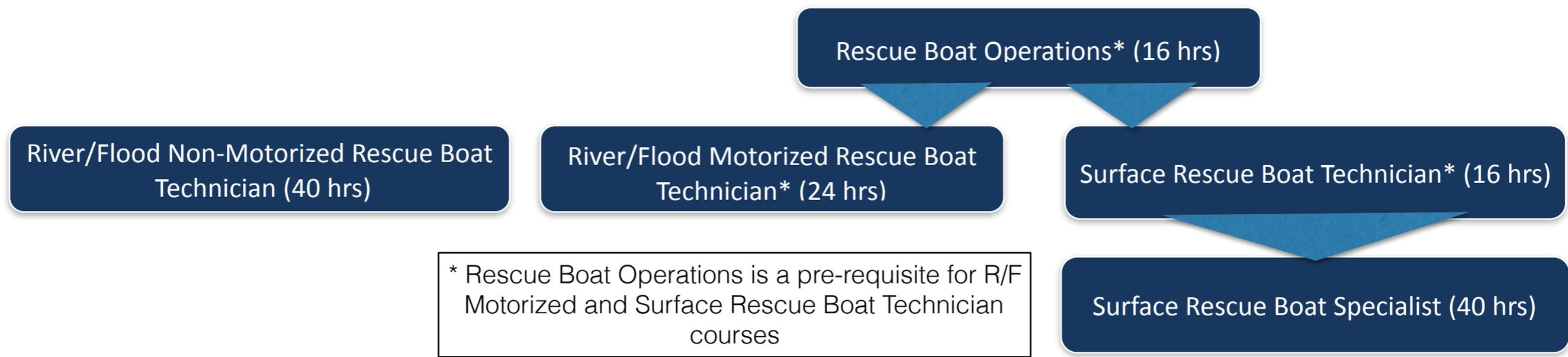
## River/Flood



## Open Water



# Boat Classes



\* Rescue Boat Operations is a pre-requisite for R/F Motorized and Surface Rescue Boat Technician courses

# Cross Discipline Course List

- **Rescue Boat Operations:** A 16 hour FSTEP course designed to develop general small boat handling skills in IRBs and rigid hulled, flat bottom boats in static water. Includes trailering, launch/ recovery, small boat handling, and self recovery and righting. This course is a pre-requisite for River/Flood Rescue Boat Technician and Surface Rescue Boat Technician.

# Open Water Course List

- **Open Water Rescuer-Basic**: A 24 hour FSTEP course designed to develop competency and self-rescue capabilities when exposed to the open water environment. Current SFT FSTEP course.
- **Surface Motorized Rescue Boat Technician**: A 24 hour FSTEP course designed to build upon general small boat handling skills developed in Rescue Boat Operations and to develop competency in the open water environment. Includes introductions to maritime navigation, search patterns, communications, boat handling while subjected to wind/current, operations IVO obstacles, and rescuer deployment/recovery, and victim recovery. Rescue Boat Operations is a required pre-requisite.
- **Surface Response Boat Specialist**: A 40 hour FSTEP course designed to develop competency as the primary operator of 18'-32' rigid hulled rescue boats operating in the open water environment. Includes advanced maritime navigation, search patterns, communications, rules of the road, boat handling while subjected to wind/current/limited visibility and low light environments, towing, and rescuer deployment/recovery, and victim recovery.

# River/ Flood Course List

- **Awareness:** A 4 hour self-paced course to prepare responders for shore based rescues.
- **Operations:** A 24 hour FSTEP course designed prepare responders to safely operate in dynamic water. Includes PPE, reading water, self-rescue, communications, and basic victim rescue skills.
- **Technician:** A 24 hour FSTEP course designed to prepare responders to mitigate complex rescue scenarios. Includes searches, mid-river entrapments, low light operations, technical rope systems, vehicles, and recreational boating accidents.
- **Non-Motorized Rescue Boat Technician:** A 40 hour FSTEP course designed to prepare responders for raft operations on dynamic water.
- **Motorized Rescue Boat Technician:** A 24 hour FSTEP course designed to prepare responders to safely operate a boat in dynamic water that includes Class III with currents exceeding 2 knots. Includes loading/ launching, dynamic water operations, reading water, advanced victim rescue, rescuer deployment and recovery. Rescue Boat Operations is a required pre-requisite.

# Proposal Overview

- Courses are intended to be modular, allowing AHJs to adopt the training that is appropriate to their jurisdiction.
- Common Rescue Boat Operations course is intended to reduce duplication at the Technician level while providing a stand-alone course for agencies with limited rescue boat operational requirements.

# Points of Contact

- River/Flood
  - Sean Norman- Cal Fire
  - Billy Miligan- Riverside Fire
  - Pat Castamagna- Sacramento Fire
- Open Water
  - Dave Winnacker- Alameda County Fire (Bay Area SAR Council)
  - Matt Samson- South San Francisco Fire (Bay Area SAR Council)