

REGIONAL STANDARD OPERATING PROCEDURES

Swift Water Rescue Operations

#: 105.01

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SCOPE:

This guideline applies to all suppression personnel who may respond to swift water emergencies.

PURPOSE:

This procedure will provide suppression personnel guidelines at all levels – awareness, operator, and technician – when conducting water rescue / recovery operations.

SAFETY:

Technical rescue operations provide situations that may easily overcome the well-intended rescuer who does not have discipline-specific training, and deteriorate the condition and/or status of the victim. In order to provide for the safety of rescuers and victims we must recognize our limitations and operate within our skill level as provided in NFPA 1670, *Standard on Operations and Training for Technical Search and Rescue Incidents*, and NFPA 1006, *Standard for Technical Rescuer Professional Qualifications*.

PROCEDURE:

Definitions

Swift Water Personal Protective Equipment (PPE) – at a minimum this will include a personal flotation device (PFD), and rescue helmet with duty uniform. PFDs and helmets are provided in the swift water bags carried on apparatus during monsoon season (on Palominas Fire apparatus swift water PPE is kept year-round). Additional recommended items are gloves and goggles or

safety glasses. Boots made of canvas or cloth material, or athletic shoes, are preferred over leather station boots which may become weighted with water.

Upstream Spotters – personnel assigned to an area upstream of the operational area. Their duties are to constantly scan upstream for debris that could be carried into the operational area and create a hazard or cause harm.

Downstream Safeties – personnel assigned to an area downstream of the operational area. Their duties will often include deploying rope bags in order to rescue team members or victims who have been caught in the current and washed downstream.

River Left/River Right – river left and river right are determined when facing downstream. From the center of the flow to the right is river right; from center of flow to the left is river left.

Up River/Down River – determined according to where the rescuer is operating. Water is flowing toward the rescuer from up river; water is flowing away from the rescuer down river.

Skill Levels

Awareness – minimum capabilities of any responder who, in the course of their regular job duties, could be called to respond, or could be first on scene at a technical rescue incident. Awareness trained personnel are not generally considered rescuers.

Operations – the responder at this level should be: capable of hazard recognition; familiar with equipment use and techniques necessary to perform shore- and boat-based rescues; and an active participant in a technical rescue under the supervision of technician-level personnel.

Technician – the responder at this level should be: capable of hazard recognition; familiar with equipment use, and techniques to coordinate, perform, and supervise a technical rescue. This may involve search, rescue, and/or recovery operations.

Response and Arrival

Upon confirmation of a swift water incident the assignment should be balanced to a First Alarm Technical Rescue which will include callout of the TRT. If rescue is completed before the arrival

of the TRT, at least one technician, such as the Rescue Group Supervisor, should continue response in order to assess and evaluate the incident, and review organizational procedures for purposes of quality assurance.

Upon arrival, the first due company will:

- Establish command. If a Rescue Group is established, the Rescue Group Supervisor should be intimately familiar with all aspects of swift water rescue operations. Strongly consider assigning a Technician to this position if staffing levels permit.
- Secure the reporting person or witnesses, if possible. This may provide useful information regarding number of victims, location, etc.
- Determine the need for additional resources
- Assess the hazards and assign a Safety Officer
- Secure the scene, utilize fire line tape to establish a working area, and remove civilian personnel to a safe area
- Decide whether the operation is a rescue or recovery. Disseminate this decision to all team members
- Prepare an incident action plan with at least two contingencies

The acronym **LAST** can be very helpful in developing a plan and guiding actions.

Locate

- All personnel operating within ten feet of the water's edge shall be in appropriate PPE. (See definitions)
- *Bunker gear, including helmets, shall not be used by any personnel operating within ten feet of the water's edge.*

- Generally a good place to start the search is at the point last seen, (PLS), possibly provided by a witness. Rescuers must consider that if the victim is in swift water and not stranded, he/she may be well beyond the PLS.
- Search parties should consist of at least two person teams and at least one team on river right and one on river left, if manpower allows. Other resources, such as helicopters, if available, can increase the effectiveness of the search.
- Once the victim is located, downstream safeties and upstream spotters should be established as soon as possible.

Access

o Access options should be considered from low risk to high risk, using *Reach, Throw, Row, Go-tow, and Helo*. Only Technicians, or Operation level rescuers under technician supervision, should attempt those options beyond *Throw*. Awareness level responders shall never enter swift water.

o *Reach* – (All rescuer levels) Attempt to reach the victim from shore by extending an arm, pike pole, ladder, inflated hose, or some other device deemed appropriate.

o *Throw* – (All rescuer levels) Throw the victim a flotation device attached to a rope, or use a rope bag.

o *Row* – (Technician level, or operations level with technician supervision) Refers to any boat that may be deemed appropriate for effecting rescue. This option should only be considered if rescuers are familiar with the operation and handling of the watercraft provided.

o *Go-tow* – (Technician level only) This option covers in-water contact rescues and should only be attempted by technician level rescuers.

o *HELO* – (Technician level only) Using a helicopter for swift water rescue is extremely dangerous to all involved and should only be used after completing a risk-benefit assessment. This option requires a helicopter to hover overhead while the victim is attached to the helicopter's load line. The victim is then flown to a safe area.

Stabilization

o Stabilize the victim by addressing life-threatening presentations. Package the victim using PPE, and any extrication device deemed necessary. Non life-threatening presentations should be addressed after the victim has been extricated.

Transport

o The first phase of the transport is extricating the victim to an area deemed safe and appropriate for a more thorough medical evaluation. This is usually dictated by the option used under accessing the victim. The second phase is transporting the victim to a higher level of care. This includes having medical transport on scene and ready to transport once the victim has been extricated.

Terminating the incident

Termination should begin as soon as possible after the victim has been rescued from the water. Command should account for personnel and equipment, and secure the scene. If a fatality has occurred secondary to rescue attempts command should consider leaving the involved equipment in place for investigative purposes. The BC shall be responsible for scheduling a formal AAR/critique of the incident and, if needed, CISM.

Special Considerations

The majority of water rescues in our area will be secondary to flash flood conditions seen during monsoon season. If a victim is stranded on a fixed object in swift water, there is no chance the water will rise and create the potential to sweep the victim away, and the victim has no life-threatening injury, consider waiting until the water recedes before effecting rescue. Avoid the temptation to consider using equipment and apparatus in ways the manufacturer may not have intended. Always consider the limitations and safety factors before implementing a plan that uses equipment in this manner.

Water rescue victims will most likely be cold, exhausted, frightened, and emotionally distraught. Consider assigning a crew member to establish communication with the victim to reassure him/her, and to explain everything that will be happening.

Commands For Swiftwater Rescue

Whistle Commands

1 long whistle blast	Stop and everyone look at me
2 short whistle blasts	Upstream / Up
3 short whistle blasts	Downstream / Down
3 repeated whistle blasts	Distress

Visual Commands

Tapping a helmet	Are you okay? Response: I'm okay
Waving hands	Help

For example if you are unsure if a rescuer is okay, you would

- 1. Blow whistle- one long blast. Once you have rescuers attention:*
- 2. Tap your helmet (asking "are you okay"?)*
- 3. If he taps his helmet in response, he is responding "I'm okay"*