

Wet-Suited



Water-rescue readiness requires an agency to prioritize its needs, from likely incidents to appropriate training levels. By Phil Turnbull & J. Michael Turnbull



The pelting rain is so strong that windshield wipers can't keep up. A youth's painful, terrified scream echoes from what was once a road but is now a driving river. Perched atop a brown Suburban sits little Emily, clutching the roof rack and calling for help while deafening water pounds past the semi-submerged car.

What has happened here? Did a dam break? Is it the freak storm of the century? Or is this only one in a string of flooding events that have besieged Emily's community?

The real question is: How prepared are you to deal with a situation such as this one? With the exception of fires, swiftwater and flood events are the most common and widespread of natural disasters. They threaten communities in virtually every corner of the planet. Unfortunately, it's routine for those of us in the water-rescue training profession to hear from unprepared agencies immediately following a water rescue or flood that caught them off-guard. While it might have been a major event, more often it was a simple rescue that went bad because the rescuers lacked the knowledge, skill and equipment to deal with it. Frequently the story includes a close call that almost cost the life of a rescuer.

The good news is that in recent years, many more agencies are realizing the need to plan for swiftwater response. Whether you work for a large metropolitan agency or a small volunteer organization, starting a water rescue program requires some common considerations.

Needs assessment

How much of a need exists in your area for a water-rescue program? While most of us

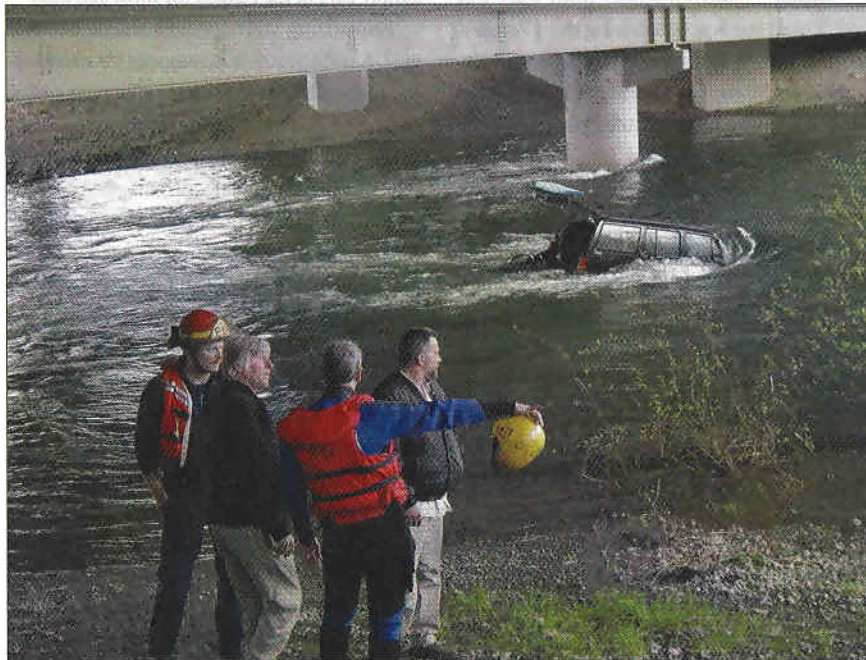
would like to train and equip a fully staffed specialty team for every hazard, from hazmat response to confined-space rescue, this goal simply isn't in the budget for most agencies.

Prioritizing your agency's rescue needs is vital. A realistic needs assessment for water rescue can really help focus your efforts, as well as answer a number of questions, from the number of personnel to the level of training and type of equipment that will be needed.

It's necessary to both research past occurrences and anticipate future needs, which may require a little sleuthing. Start by looking for information on past incidents. One great resource is the National Weather Service, which has historical records of flood events. Your local newspaper and other media archives also may hold a wealth of information. While it's helpful to document information about the big events, it's also vital to start a database of any documented rescues. You may find that an innocuous low-head irrigation diversion dam has been responsible for numerous deaths or near misses over several decades.

In addition to official records, there may be one or more organizations that have institutional knowledge relevant to your research; seek interviews with those involved. The most obvious organization to research is your own, but include all standard first response agencies. There also could be other, less obvious sources of information, such as local, state or federal parks services; state marine boards; state emergency management; recreational clubs; and private guide companies. Your research should include statutory roles and responsibilities of the various agencies, as well as their response capabilities and guidelines.

All of this research should help you estab-



lish a realistic picture of the frequency and severity of water rescues and flood events in your community, as well as assess current local rescue capabilities.

Program design

Armed with the needs assessment information, it's time to determine where your agency fits into the whole scenario and how prepared it is at present to fill any identified needs.

If you find that flooding and swiftwater rescues are virtually unheard of, or that another department or agency already has water rescue adequately covered, then why create a

redundant system? In this case, be willing to accept that your energy might be better spent on other priorities. However, once a need has been identified and you've decided to fill it, the real work is just starting.

There are a number of ways to address the issues identified in a needs assessment. While creating a service-delivery model is important, it's equally important to remember that prevention is one of the best rescue tools. While it may not be as sexy as starting an elite specialty rescue team, public education is a very effective place to invest time and money. For example, one community noted that back-

yard pools were the leading cause of drowning and wisely chose to invest in programs aimed at increasing public awareness of pool safety. Had this community chosen to address drowning solely by improving response capabilities, there's little doubt the outcome would have been less impressive.

Another avenue is the creation of new laws and regulations. The state of Arizona has had such a problem with drivers attempting to cross flooded streets that it passed what's universally referred to as the "stupid motorist law." Under this law, municipalities and rescue agencies can charge people for the cost of being rescued if they fail to observe posted warning signs. This approach has been very successful.

Unfortunately, even with community education and regulations, emergency response capabilities are a necessity. But the level of service can vary based on the results of your needs assessment, as well as the amount of time, energy and money that's available. The trick is to create an appropriate response model using a combination of public education, laws and regulations, and effective emergency response that maximizes program effectiveness for the best results.

Basic training

Once you've designed your program, it's time to start thinking about training. The first step is selecting an operating level, much like determining a scope of practice. NFPA 1670, Technical Rescue, suggests that each agency should select from one of three operational levels: Awareness, Operations or Technician.

Awareness. This is the most basic of the three operational levels for agencies focused more on teaching their members what not to do in a rescue situation. Awareness training introduces responders to many of the hazards associated with swiftwater rescue, and the knowledge they receive is more theoretical in nature.

Personnel trained to this level aren't classified as rescuers, but the training does help ensure that they aren't added to the list of casualties. This is an excellent approach for those communities with very infrequent water rescue occurrences.

So what can an Awareness-level organization do for victims? Awareness personnel have the knowledge to call in the appropriate

resources, as identified in the needs assessment. In the event that absolutely no water-rescue resources are available, then you may want to consider training up to the Operations level. Short of that, Awareness-level training is more vital than ever because without it, would-be rescuers are far more likely to improvise if they know no other help is on the way, which can lead to disastrous results. Awareness-level training is intended to help the non-rescuer fight the natural urge to do something dangerous.

Operations. This level is designed for those organizations that want their members to perform low-risk rescues, thus compromising between the extreme of no rescue and a full-blown, high-risk-capable team. In short, Operations-level rescuers are trained for shore and boat-based rescues. These capabilities are comparatively inexpensive to train for and offer a good level of success for the investment.

Technician. The third and most complex level offers the most capability. It encompasses

all of the Operations-level skills and adds a full range of in-water contact-rescue capabilities and full knowledge of technical rope systems. Using ropes in the swiftwater environment involves training beyond that required for standard rope technicians. Not surprisingly, the Technician level involves far more training and specialized equipment than the Operations level. However, the payoff is that this level offers top-notch capability.

Of course, specialty resources such as a boat or dive component require different training. There's a world of difference between open water and swiftwater, necessitating advanced qualifications and training. For example, a public safety diver certification is required for swiftwater divers, as standard divers have no business in swiftwater, much less floodwater.

Balanced levels

It's important to have realistic expectations. Because of the expense of training someone to the Technician level, agencies generally focus on a small number of personnel and form a

specialty team. While there's no question that a Technician-level team can save lives, most successful water rescues occur immediately or not at all. This is one of the reasons why there's no national-level approach to water rescue like the FEMA Urban Search and Rescue teams. If you anticipate other resources arriving ahead of the team, you may want to consider including them in your formula. Many agencies have found that providing all first responders with some level of training is the most effective solution.

But if you decide that your goal is Technician-level capabilities, must everyone be trained to the Technician level? The answer is a resounding no. Most experts agree that more Operations-level personnel are needed to assist a fewer number of Technician-level personnel. Generally, a ratio of three Operations people to one Technician has proven adequate. Further, Awareness-level personnel can provide many support and logistical functions. This formula is not much different than the one used by most fire departments for



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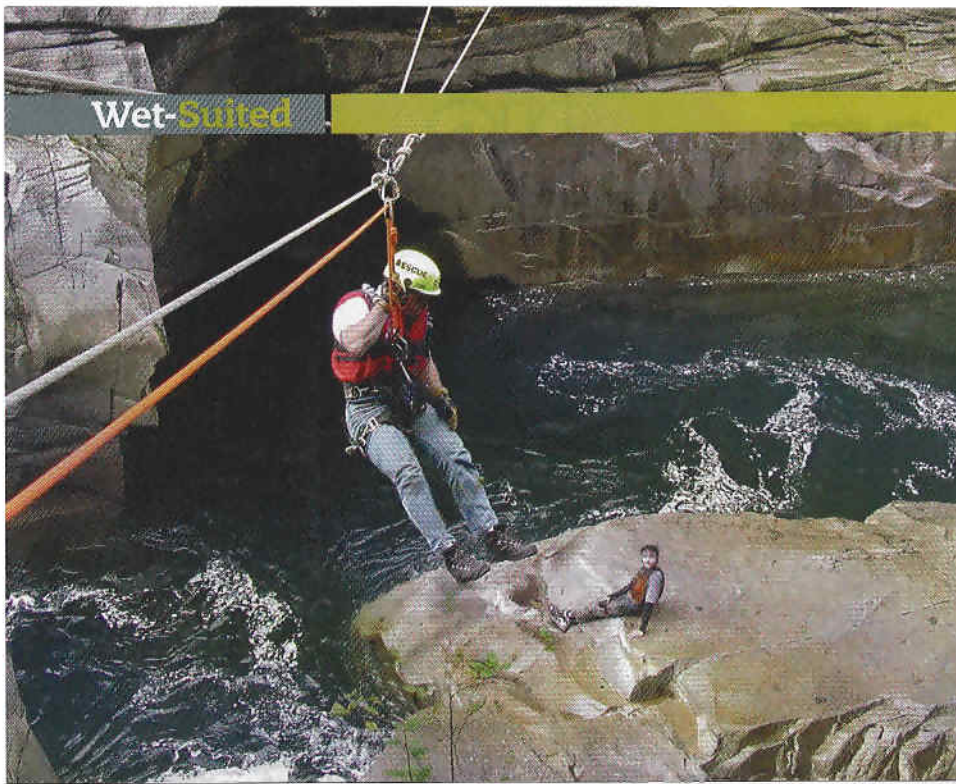
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Most agencies choose not to form a centralized swiftwater specialty team; rather, they spread knowledge and skill levels throughout

the organization. The term "team member" then becomes a reference to any personnel trained above the Awareness level. Keep in mind that the department's operating level is a target for the organization as a whole, not a

description of the minimum training for each and every member of the organization.

Finally, remember not to leave management out of the training loop. Having agency management trained to at least the Awareness level is vital to having a good team because it provides a baseline understanding of the challenges facing field rescuers. When managers show up to "help," they'll know enough to stay out of harm's way. However, anyone filling the safety officer role must be trained to the same level as the rescuers.

Final considerations

After selecting the level of training, it's time to plan how to manage a water-rescue emergency. If you don't already use an incident management system, start! With the National Incident Management System now a requirement for federal funds, failure to adopt and use it may preclude your jurisdiction from receiving federal preparedness grants or reimbursement for costs expended during major emergency and disaster response and recovery operations.

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As floods often qualify for federal assistance, the adoption of NIMS is essential.

No matter how you go about it, ensuring the response of an adequate number of rescuers is a major commitment. Vacations, illness and injuries can render a program useless if there isn't an ongoing commitment to maintaining the number of trained personnel.

There should be enough trained and equipped personnel to handle a water rescue incident on every shift every day of the year. The rescuers selected also need to be willing to take the time and effort to remain current and practice the demanding skills and techniques that will be required of them. Many agencies have turned to incentive pay to recruit suffi-

cient numbers and encourage their training.

Once the incident management system and staffing are in place, it's time to consider equipment. Hold off on purchasing equipment beyond basic PPE until after the team has completed its initial training. During training, personnel will be able to use many types and brands of equipment, which will allow them to make educated decisions about the equipment best-suited for their needs.

Time and again, well-meaning purchasing agents have ordered equipment only to receive a brand-new wish list of equipment from freshly trained personnel. Worse yet, the equipment bought before the training may be unsuitable or even unsafe for the intended use. While an initial investment will be necessary, don't go overboard. Plan to reinvest on a regular basis as the team gains experience and items need to be replaced. This gradual purchasing will give team members the ability to identify those items truly suited to their specific needs.

Now for the big equipment question: Does your team need a boat? In most swiftwater and flood environments, a boat will improve a team's capabilities tenfold. One of the biggest decisions that may face your new team is whether to purchase one, and one of the most common questions asked is what type of boat is best. Unfortunately, there is no best. Each community is different, and there are an infinite number of watercraft types, not all of which are classified as boats.

After fighting to start your team, the struggle to keep the team viable over time will prove to be the greatest challenge. Ongoing operational costs, recruitment and skill retention are all very real challenges that can render all your efforts useless within a few short years.

Be honest about your ability to keep up with the ongoing demands of running a successful swiftwater rescue program. But if the rain falls and your team makes what would have been an extremely dangerous rescue look easy, you'll know that it's all been worth it. **[FC]**

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