



Water Rescue – Category 5L# September 2021

Annual Program Evaluation

Summary: The Elk Grove Village Fire Department Water Rescue Team had four (4) call outs with MABAS Division One for Drowning Level 2 activations during the past year. All on-duty divers from MABAS Division One departments are dispatched on Level 2 drowning incidents. One call was of significance. This call was for a vehicle in the water at the Busse Woods Boat Launch. The two occupants were attempting to launch their boat when the car and trailer rolled backwards into the water. All occupants were never in the water. Dive Team members were able to successfully hook the car with the tow truck, and it was removed from the water. The Water Rescue Team was able to purchase new equipment to make diving and swift water rescue safer and more effective. The Water Rescue Team was able to participate in many training events, which increases our knowledge and makes us more proficient in our skills. During the year, our staffing did decrease, but we are in the process of training new members in dive rescue and swift water rescue.

Operational Performance:

Water Rescue Baseline Performance Response (all areas)

The Department relies on the use of automatic aid from neighboring fire departments to provide its effective response force complement of personnel. These resources are immediately available as part of a seamless response system. The Department's actual baseline service level performance is as follows:

The Department had one (1) maximum risk water rescue incident during the time frame. The Department does not consider any water rescue incident low or moderate risk.

For ninety (90) percent of all high risk water rescue incidents, the total response time for the arrival of the first-due unit, staffed with a minimum of two (2) firefighters and one (1) officer, is: eight (8) minutes. The first due unit is capable of: establishing command, evaluating the need for additional resources, and controlling immediate hazards and life safety issues.

For ninety (90) percent of all high risk water rescue incidents, the total response time for the arrival of the effective response force (ERF), staffed with fourteen (14) firefighters and officers, including the technical response team, is: thirteen (13) minutes and forty-five (45) seconds. The

ERF is capable of appointing a site safety officer, hazard control, and patient stabilization and transport.

For ninety (90) percent of all maximum risk water rescue incidents (Drowning Level 2), the total response time for the arrival of effective response force (ERF), staffed with 20-30 firefighters, paramedics, and officers including the Mutual Aid Box Alarm System Water Rescue Team shall be: twenty-eight (28) minutes and forty-five (45) seconds village wide. The ERF shall be capable of: appointing a site safety officer, establishing patient contact, providing technical expertise, knowledge, skills, and abilities during technical rescue incidents; and providing first responder medical support.

The small sample size of this response type adds to difficulty in using this metric for analysis. The Department will continue to monitor this response type. It is recommended that we collect 10 years of data to establish true benchmarks for this type of incident.

Water Rescue All Area 90th Percentile Times Baseline Performance			Bench- mark	2016- 2020	2016	2017	2018	2019	2020
Alarm Handling	Pick-up to Dispatch	Urban	1:30	3:04	1:13	5:33	n/a	2:57	2:47
Turnout Time	Turnout Time 1st Unit	Urban	2:15	4:38	2:49	1:12	n/a	1:46	5:33
Travel Time	Travel Time 1st Unit Distribution	Urban	4:15	14:08	3:11	13:35	n/a	20:40	5:45
	Travel Time ERF Concentration	Urban	10:00	14:57	7:19	12:26	n/a	20:13	11:15
Total Response Time	Total Response Time 1st Unit on Scene	Urban	8:00	19:20	6:58	19:16	n/a	9:31	11:45
	Distribution			n=12	n=2	n=2	n=0	n=3	n=5
	Total Response Time ERF Concentration	Urban	13:45	24:02	23:47	23:57	n/a	25:33	19:35

Outcome Metrics: There was one (1) water rescue related incident in Elk Grove Village. This did not result in a drowning. There was no loss of life. The vehicle that was submerged in water was a total loss.

Strategic Plan Goals and Objectives:

- 1) Each diver/swift water technician will attend the minimum number of dives/drills during the year per the MABAS SOG for Water Rescue.
- 2) During the next year, two (2) swift water technicians will attain Advanced Swift Water Technician certification.
- 3) During the next year, the Water Rescue Team will conduct a water rescue drill that incorporates the three (3) shifts to gain a better understanding of what roles and responsibilities they have for a water rescue incident.
- 4) During the next year, two (2) divers will attain Ice Dive Operations certification.

Training: For the year, the Water Rescue Team participated in twelve (12) MABAS dive drills with various departments hosting the drills, five (5) Elk Grove Village Fire Department Water Rescue Team drills, four (4) MABAS swift water drill, and two (2) Elk Grove Village Fire Department Swift Water Rescue Team drills. Sonar technicians had the chance to operate sonar at the MABAS Dive Team drills and the EGVFD team drills. The Elk Grove Village Fire Department Water Rescue Team hosted the MABAS Swift Water Drill in September 2020 at Busse Woods Main Dam. For the drill, team members set up high-line operations to conduct boat-based rescues. Team members also conducted boat-based rescues below the dam. In June, two members attended the Mass Casualty Water Rescue Drill in Chicago. This was a three day evolution that included: surface water rescue, sub-surface water rescue, sonar operations, and evidence search. Each member of the Water Rescue Team completed the annual IADRS swim skills evaluation, and divers completed the basic dive skills review. Each ice diver also completed their annual ice dive requirement.

The training needs for the year are based on the MABAS Division One SOG for water rescue. Divers need to complete six (6) open water dives (one of them needs to be an ice dive if they are ice certified) and the annual IADRS Watermanship Evaluation and basic scuba skills evaluation. Swift water technicians need to attend two (2) swift water drills and completed the annual IADRS Watermanship Evaluation. The Elk Grove Village Fire Department Water Rescue Team is also responsible for hosting one MABAS dive drill during the year. We had two (2) members attend Swift Water Technician class. We also had two (2) members attend Advanced Swift Water Technician class. Current members of the Water Rescue Team would also like to attend outside seminars and conferences to gain knowledge. They would also like to attend certification classes including: Ice Diving Operations, Water Operations, Rope Operations, Advanced Swift Water Technician, and Watercraft Technician.

The water rescue team leader conducted surface ice rescue training for all three shifts. Because the ice was too thick to cut holes into, the training consisted of using GPS to locate a victim on the ice and using the available equipment to bring the victim back to shore.

The water rescue team leader conducted boat training for all three (3) shifts. These drills consisted of launching a boat, boat operations, and trailering a boat. Both the Rapid inflatable boat and the rigid hull boat were used for training.

Lastly, the Water Rescue Team hopes to include all three (3) shifts in some of their dive training so that shift members are aware of what needs to be accomplished and what their responsibilities are on a water rescue incident.

Equipment: Five (5) swift water suits and two helmets were purchased this past year. The swift water suits replace old swift water suits that leak or have reached their end of life. The helmets that were purchased are red, and designate who is an Advanced Swift Water Technician. The Department also purchased a new RDC Fortuna boat. This replaced one that had reached its end of life with leaks, cracks, and dry-rot. This boat is used for surface ice rescue, swift water rescue, and flood response.

The team runs out of a dive squad that pulls the water rescue trailer behind it. The team has 3 boats available for its use.

Equipment that we will look into purchasing in the next year is all part of the replacement plan. This includes: swift water suits, new diver communication box, RS4 regulators for surface-supplied diving, and computer consoles to better track diver air consumption, depth, and bottom time.

Staffing: The Elk Grove Village Fire Department Water Rescue Team currently has 9 divers, 14 swift water technicians, and 11 sonar technicians. Lt. Andy Laird is the Team Leader and oversees the entire team. Other team members have expressed interest in taking on more responsibility for the dive team. Some shifts have more divers than other shifts. The Elk Grove Village Fire Department does not require a certain numbers of divers per shift. The shifts with less divers will have to rely on the MABAS response from other departments to assist. Many of the water rescue team members that are not divers are familiar with diver equipment and set-up processes if there was a water rescue incident.

The team would like to maintain 12 divers and 16 swift water technicians. Having these numbers would help maintain balance amongst the shifts. Many of the sonar technicians are either divers or swift water technicians; some are neither.

Program Improvement Plan: During the next year, the Elk Grove Village Fire Department Water Rescue Team will offer enough training opportunities for its members to attend the required amount of drills per the MABAS Division One Water Team SOG. These training will either be team drills or MABAS drills. Each member of the team will also complete the IADRS Watermanship Test and Basic Skills Evaluation.

The Water Rescue Team is planning to continue shift level training. We will continue to build on the knowledge and training in areas of surface ice rescue, boat operations, launching a boat, and trailering a boat. The Water Rescue Team will also plan to incorporate the shift for dive training so they can be prepared for an emergency incident.

The budget for this year allows the team to send two (2) new members to become divers and two (2) members to become swift water technicians. This will increase the Water Rescue Team membership, getting us closer to maximum amount we want to have on the team. Though we operate at a high level of safety, technology is always improving. When the budget allows, the team will look at improving safety with a new diver communication box, new dive computer consoles, and new regulators.