

## **Operating Guideline # 1401**

### **Water and Ice Water Rescue**

**April 15, 2023**



#### **PURPOSE:**

The purpose of the Operating Guideline (OG) is to describe the initial actions to be taken by Emergency Operations staff members who respond to a water or ice rescue situation.

#### **GUIDELINE:**

##### **General**

1. The safety of crews shall always be paramount in the minds of those persons charged with making initial and ongoing strategic, tactical and task level decisions at emergency incidents.
2. A coordinated, well-planned and well-executed response to a water or ice rescue incident requires that all members be familiar with and adhere to the principals and practices associated with "Incident Command" guidelines (the 700 series OG's). A "Rescue Sector Officer" (RSO) shall be designated for all ice rescues in particular and this person shall be an individual who has successfully completed the approved course.

NOTE: The Incident Commander may fill the role of RSO in addition to being the I/C *only* where staffing limits require and he or she has successfully completed the aforementioned course.

3. It is important to distinguish very quickly whether the incident is a "rescue" or a "recovery" operation. True rescue situations demand quick, decisive actions based on an appropriate and thorough risk/benefit analysis. Recovery operations must always be viewed as secondary, support type operations and are done as a service to assist other agencies (i.e. police acting on behalf of a Coroner). Muskoka Lakes Fire Department does not conduct "recovery" operations, but may assist other agencies - recovery operations do not warrant unnecessary risks by rescuers.

##### **Initial Actions – Both Water & Ice Rescue**

4. The first arriving apparatus shall be positioned in a safe location, preferably in an area that affords the officer the best vantage point and provides for efficient deployment of equipment and personnel.
5. The officer shall provide an initial radio report/size-up upon arrival, providing the following information to all other incoming units:
  - a. Confirm the location. Announce this on radio.
  - b. Initial strategy and actions being initiated - evaluate water/shore/ice conditions, state/number of victim(s). Announce this on radio.
  - c. Evaluate needs. Call for additional Resources (Police, EMS, Mutual Aid).
  - d. Initiate "Command".
  - e. Designate a "Rescue Sector Officer" (RSO)

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6. An Incident Action Plan shall be established by the Incident Commander. Hot, warm and cold zones shall be established in similar fashion to those which are established at HazMat incidents. The hot zone shall be defined as the area within 5 meters of the water/ice edge (or further as defined by the incident commander where the shoreline is slippery or steep).

7. Incident Action Plans should be built around the following basic tenants (in order of escalating rescuer involvement and risk):

- a. Talk – make vocal contact with the victim, encourage self-rescue.
- b. Reach – hand extension from shoreline or reach with a pike pole or similar object.
- c. Throw – throw a rescue line, buoy or extend a ladder onto ice surface.
- d. Go – go to the victim; use the rapid deployment craft (i.e. – MARSAR's board) or boat; or enter the water or go onto the ice surface to facilitate the rescue.

**NOTE: All water and Ice rescues should be attempted as land based rescues initially and entry into the water, or onto ice, should only be undertaken as a last resort.**

8. In addition to the RSO, the "Accountability", "Safety", "Rehab" and "RIT" functions should be included with any water or ice rescue Incident Action Plan. Call for Command 10 to attend to provide an area for dressing, warming and rehab.

9. PFD's shall be worn by all emergency operations personnel who function:

- a. within the hot zone, and/or
- b. Where they are engaged in activities that have the potential for personnel to be pulled into the water. (reaching)

### **Water Rescue/Search Situations**

10. MLFD has a policy of calling for two vessels when one is engaged in rescue, the responding Incident Commander should ensure that Marine 4 & Marine 9 respond together, Marine 1 & Marine 5 respond together, if Marine 6 is dispatched the O.P.P. Marine Unit be requested.

11. The minimum number of staff required to initiate a standing water rescue operation is seven (one Incident Commander/RSO, two rescuer and two attendants, one RIT/back-up team). Any rescuer that leaves shore must be outfitted with the appropriate PPE (*Rescue* PFD, Immersion suit, helmet) and shall be tethered to shore based "attendants" via an appropriate safety line. All lifelines, attachment points and immersion suits will be checked by the RSO prior to the rescue commencing.

12. The Incident Action Plan should contemplate the use of a rapid deployment craft (RDC) where possible.

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NOTE: where obstructions or access limitations preclude the use of a direct connection of the rapid deployment craft to a safety line, the incident commander must take alternative precautions to ensure the safety of the rescuer(s).

13. Where a victim is or becomes submerged, all search methods/rescue attempts by members of the Fire Department shall be attempted only from a RDC, a boat or other similar vessel. Under no circumstances will members of the MLFD conduct operations that require them to dive below the surface of the water.

14. The rescue may be aborted by the Incident Commander, the RSO, or a rescuer for a number of reasons including:

- a. The situation becomes extremely dangerous;
- b. The rescue cannot be completed;
- c. A rescuer fails to respond to communication; and/or
- d. The victim(s) disappears beneath the surface of the water

NOTE: Rescuers are responsible to maintain communications with the RSO and attendants. All information which could affect the continuation of safe operations shall be communicated to all rescue team members.

15. Where victims cannot be located or disappear from view beneath the ice, the O.P.P. Underwater Search and Recovery Team must be requested to attend the scene.

16. Members of the MLFD may assist with shore-based, standing water *search* operations and may only enter water:

- a. if equipped with a PFD;
- b. where they are in physical contact with another searcher; and
- c. The water depth does not exceed waist depth.

### **Flash Flooding**

17. Flash flooding events should be handled with caution. Apparatus operators should not operate vehicles on streets/road surfaces that have been or are subject to significant flooding or flooding over 30 cm.

18. Where persons have been stranded in vehicles on flooded streets/roadways etc., the standard provisions for a water rescue should be adhered to. In addition to the provisions of sentence 11, consider the following:

- a. Rescuers should NOT enter vehicles in any water rescue situation
- b. Fuel spills may be present in the water
- c. Wear appropriate eye protection in addition to other PPE
- d. Where water is flowing, approach the vehicle from “upstream”
- e. Provide the vehicle occupants with PFD’s
- f. As passengers evacuate the vehicle, the vehicle can shift and move

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g. Where there is a risk of passengers or rescuers being washed downstream, have rescuers positioned downstream in advance of starting the evacuation of the vehicle

#### **Communications**

19. The noise of moving water and motors may prevent effective communications between rescuers. Radios may not always be practical for rescuers in the water. Hand and whistle signals provide a simple form of communications during water and ice water rescue operations. Standardized whistle signals using the "SUDOT" system are as follows:

- 1 blast- **Stop**, Look at me
- 2 blasts- **Up**
- 3 blasts- **Down**
- 4 blasts- **Okay**, Off Rope
- Sustained- **Trouble**

Standard swiftwater hand signals:

- **Distress / Help**: One hand held above head
- **Okay**: Hand tapping on head or create an "O" with both arms
- **Move / Swim**: Two hands up then point
- **Eddy out here**: Two hands up, wave then point
- **Need medical help**: Both arms crossed at chest or overhead

#### **Ice Rescue Situations**

20. No ice surface should be viewed as safe to walk on. The Incident Commander and RSO shall make continuous assessments of ice conditions throughout any rescue attempt and is/are responsible for the safety of all personnel.

21. All ice rescue situations will result in the deployment of ice rescue team members and equipment assets from the closest three stations.

22. The minimum number of staff required to initiate an ice rescue is seven (one Incident Commander/RSO, two rescuers and two attendants, one RIT/back-up team of two). Any rescuer that ventures onto ice or enters the water in an ice rescue situation must be outfitted with the appropriate PPE (PFD, Immersion suit, helmet etc.) and shall be tethered to attendants via the appropriate safety lines. All lifelines, attachment points and immersion suits will be checked by the RSO prior to the rescue commencing. The Incident Action Plan should contemplate the use of a rapid deployment craft (RDC) where possible.

NOTE: where obstructions or access limitations preclude the use of a direct connection of the rapid deployment craft to a safety line, the incident commander must take alternative precautions to ensure the safety of the rescuer(s).

23. Where a victim is or becomes submerged, all search methods/rescue attempts by members of the Muskoka Lakes Fire Department shall be attempted only from ice surfaces

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that will support the weight of rescuers on the rapid deployment craft (RDC), a boat or other similar vessel. Under no circumstances will members conduct operations that require them to dive below the surface of the water.

24. The Incident Commander in conjunction with the safety and accountability officer should be cognizant of the amount of time rescuers are exposed to extreme temperatures, and in particular any rescuers who may be required to enter the water. Hypothermia is a very real threat to rescuer safety and it may be necessary to establish Rehab operations depending on the nature and extent of operations. Nearby shelter for rescuers should be considered early, MLFD Command 10 should be called to attend the scene.

25. The rescue may be aborted by the Incident Commander, the RSO, or a rescuer for a number of reasons including:

- a. The situation becomes extremely dangerous
- b. The rescue cannot be completed
- c. A rescuer fails to respond to communication
- d. The victim(s) disappears beneath the ice

NOTE: Rescuers are responsible to maintain communications with the RSO and attendants. All information which could affect the continuation of safe operations shall be communicated to all rescue team members.

Where victims cannot be located or disappear from view beneath the ice, the O.P.P. Underwater Search and Recovery Team must be requested to attend the scene.

### **Emergency Patient Care**

The Incident Action Plan should make provisions for the treatment of all persons rescued from either water or ice rescue situations. Where EMS providers are not on scene, emergency operations personnel should be prepared to deal with shock, unconsciousness, hypothermia, and sudden death type scenario's being mindful that in cases of cold water immersion, victims have been known to fully recover even after prolonged periods of submersion. Life saving efforts should be initiated in all but the most obvious death situations and shall be continued until patient care is transferred to a higher medical authority.

### **RESPONSIBILITY:**

It is the responsibility of all firefighters to comply with the provisions of this Operating Guideline.

### **DEFINITIONS:**

**"Immersion suit" means** a special suit designed to keep the wearer warm and dry when they are immersed in water (also known as a dry suit).

**"PFD" means** a Personal Floatation Device stamped or labeled and approved by Transport Canada or the Canadian Coast Guard.

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**“Rescue Sector Officer” (RSO) means** an individual appointed by the Incident Commander within the Incident Command System to act as the primary supervisor responsible for rescue operations.

**“Standing Water” means** water that does not have an appreciable current.

**“Swift Water” means** water that is flowing at such a speed so as to constitute a danger to rescuers or persons in the water.

#### **REFERENCES:**

- Section 21 Committee Guidance Note GN 6-3, Water and Ice Rescue
- Section 21 Committee Guidance Note GN 6-2 Firefighting Near Water