

MABAS DIVISION		12	Dive/Swiftwater Rescue Team
	Standard Operating Guidelines and Procedures for Training, Rescue, and Recovery Operations		
Approved: Team Leader		Effective: 03/25/19	
Approved: Chief Liaison		Replaces: 01/2013	

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Mission Statement

The mission of the MABAS Division 12 Dive/Swiftwater Rescue Team is to provide sub-surface and surface rescue, search & recovery for water related incidents to the communities we serve, by prompt, professional and efficient response.

Motto:

Service before Self.

Scope:

Between 4,000 and 6,000 drowning deaths occur annually in the United States. For every drowning, there are six to 10 near-drownings that result in permanent neurological impairment. Water Rescue operations present a significant danger to rescue personnel. The safe and effective management of these types of operations requires basic to very specialized considerations. Water rescue incidents generally occur because victims either knowingly enter the water, or otherwise find themselves in the water and unable to remove themselves from the dangers associated with that body of water. There is always a possibility of more victims becoming stranded because of the good intentions of caring citizens, and/or untrained rescue personnel, trying to help. These guidelines identify some of the considerations that must be included in managing these types of incidents.

Purpose:

To ensure that all diving and water rescue operations under the auspices of the MABAS Division 12 Water Rescue Team (WRT) are conducted in a manner that maximizes protection of Divers and Swimmers from accidental injury and/or illness. This document sets forth minimal procedures for the establishment of diving programs within MABAS 12 WRT. In addition, this document establishes the basic guidelines and procedures for safety in diving and water operations, and enables the division to comply with NFPA 1670 (2009 EDITION). It shall be the policy of Division 12 not to allow personnel to participate in water rescue activity without the use of proper safety equipment and training.

NOTICE: An asterisk (*) following the number or letter designating a paragraph indicates that explanatory material on the paragraph can be found in Annex A.

An asterisk (**) following the number or letter designating a paragraph indicates that explanatory material on the paragraph can be found in Annex B.

An asterisk (***) following the number or letter designating a paragraph indicates that explanatory material on the paragraph can be found in Annex C.

Policy:

- Diving and water rescue operations are equipment intensive and inherently dangerous activities. While safety is paramount, these activities by their nature are not safe. Therefore, exercising personal discipline and fostering a culture of being SMART is to be paced on all activities.
- No person shall engage in diving operations unless they currently are trained as a Public Safety Diver as outlined in these guidelines.
- No person shall engage in Swiftwater swimming operations unless they currently are trained as a Swiftwater Technician as outlined in these guidelines.
- No personnel are permitted to operate at any training scenario or incident at a level above which they have been trained.
- Divers and Swimmers must be assessed annually to division standards to maintain certification to act in the capacity of a Diver or Swimmer.

Water-rescue and/or Ice-rescue awareness training to all personnel should include:

- Guidelines for size-up of existing and potential conditions.
- Guidelines for identifying the resources necessary to conduct safe and effective ice- and/or water-rescue operations.
- Guidelines for implementing the emergency response system for ice- and/or water-rescue incidents.
- Guidelines for implementing site control and scene management.
- Guidelines for recognizing the general hazards associated with ice- and/or water-rescue incidents, and the procedures necessary to mitigate these hazards within the general rescue area.
- Guidelines to determine rescue versus recovery.

DEFINITIONS

ALTERNATE AIR SYSTEM	A secondary air supply system that involves an alternate second-stage regulator provided by either a separate dedicated second-stage or a multi-purpose second stage regulator coupled with a buoyancy compensator inflator valve.
BACK-UP DIVER	See; Safety Diver
CERTIFICATION	Documentation stating an individual has completed the qualifications required by a nationally recognized Public Safety Diving agency to perform specific diving activities.
COMPETENT PERSON	One who is capable of identifying existing and predictable conditions in the surroundings or in the working area that are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate such conditions.
CUTTING TOOL	A handheld cutting device; may include, but not limited, to a dive knife or Paramedic shears.
DIVE	An exposure to increased pressure whether underwater or in a hyperbaric chamber.
DIVE ACTION PLAN (DAP)	Written procedures, including Standard Operating Procedures, for managing a dive rescue/recovery response and operation.
DIVE / NO DIVE DECISION	The decision regarding whether to conduct a sub-surface rescue/recovery operation made after a Risk vs. Benefit analysis is completed.
DIVE OPERATION	A situation requiring divers to complete an assigned task.
DIVE TEAM	Personnel trained and certified in public safety dive operations.

EMERGENCY PLAN	Written procedure identifying actions needed for managing operational or medical emergencies that may occur during a dive operation.
ENVIRONMENTAL PROTECTION	The isolation of a device, critical mechanism, or person from extreme ambient conditions likely to cause a failure or damage to devices or mechanisms, or the exposure of a person to harmful contaminants or debilitating thermal conditions.
LOGBOOK	A written record of date, location, depth, dive time and type of scuba dive conducted.
PUBLIC SAFETY DIVER	An individual using breathing apparatus that supplies compressed breathing air at ambient pressure and is conducting dives outside the parameters of recreational diving for the specific purpose of underwater rescue or recovery operations and the direction of and authorization of a government entity.
PUBLIC SAFETY DIVING	Underwater diving, related to team operations and training, performed by a member, group, or agency of a community or government- recognized public safety diving or water rescue team.
PUBLIC SAFETY DIVE SPECIFIC, TRAINING AGENCY	A OSFM approved, Public Safety Dive certifying agency that provides the following: a nationally recognized public safety diving training standards; a nationally recognized public safety diving curriculum; and a mandatory (certification contingent) continuing education/skills maintenance program.
“REACH, THROW, ROW, GO”	The four sequential steps in water rescue with progressively more risk to the Rescuer. Specifically, a “go” rescue involves physically entering the medium (e.g., in the water or on the ice).
REDUNDANT AIR SYSTEM	An independent secondary underwater breathing system minimum of 19 cubic feet of air (i.e. pony bottle with first and second stage or a pony bottle supplying a bailout block). Depending on depth and equipment additional gas volume and redundant supply may be warranted.
RISK/BENEFIT ANALYSIS	A decision made by a responder, based on a hazard and situation assessment, that weighs the risks likely to be taken against the benefits to be gained for taking those risks.
PRIMARY DIVER	The diver conducting the in-water operation.
SAFETY DIVER	An on-site diver available to assist another diver in the water, who is hovering near/above the primary. The Safety Diver shall

be able to submerge immediately to provide assistance to the primary diver in distress or need. The Safety Diver must have all equipment donned and operational.

90% DIVER

A diver dressed to the point where becoming fully-dressed and operational would take minimal time. The 90% diver is a back-up to the safety diver if they were to be deployed.

SCUBA EQUIPMENT

Apparatus used to allow swimming underwater including compressed-air cylinder, regulator, thermal protection, fins, buoyancy compensating device, weights, and mask.

SWIFT WATER

Water moving at a rate greater than one knot (1.15 mph).

SWIFTWATER SWIMMER

Technician in appropriate PPE entering moving water.

TENDER

An individual trained in the responsibilities of diver safety that provides control of search patterns from the surface of the water.

TERMINATE/ABORT DIVE

The immediate cessation of dive operations.

WATER HAZARD ZONE

The area that is identified by the Incident Commander, Safety Officer of Dive Team Leader or the Shift Lead Diver that poses a risk to personnel. Personnel must be in personal floatation devices and helmets.

WATERMANSHIP SKILLS

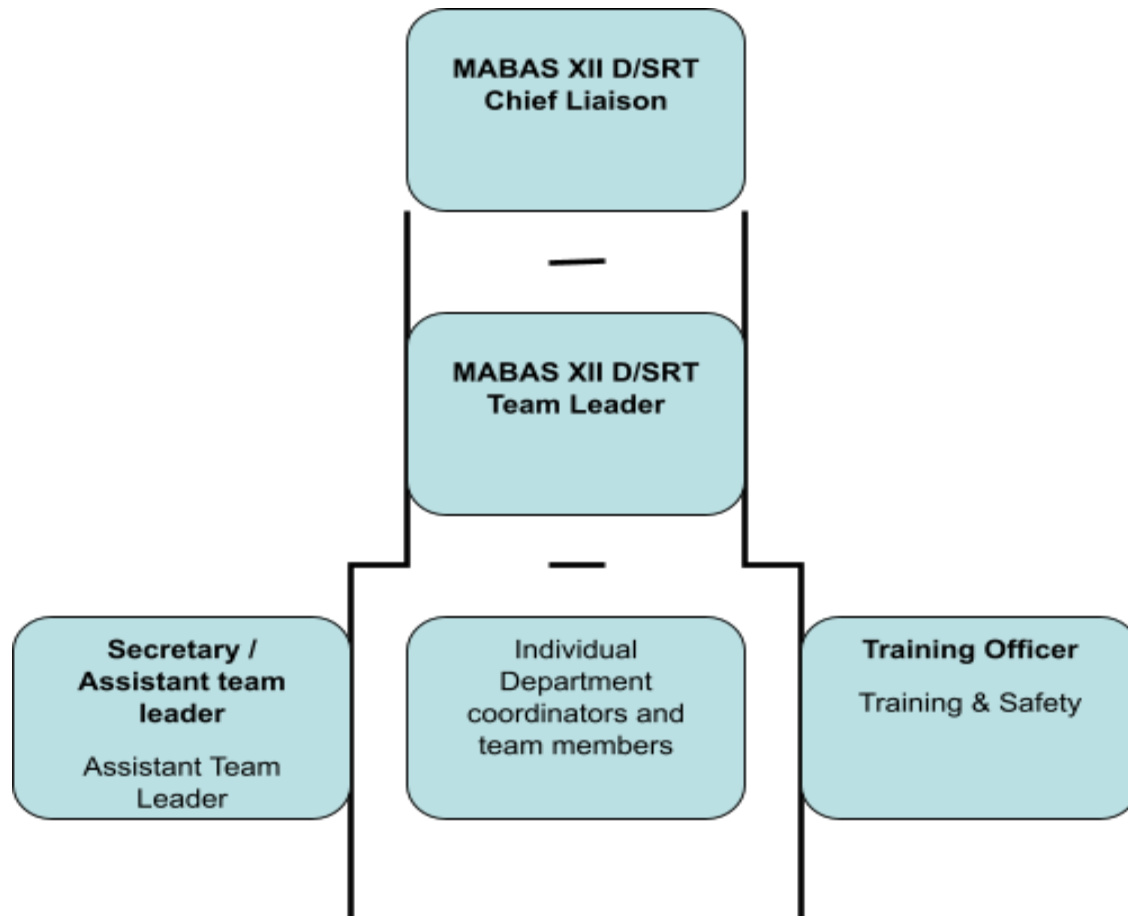
Capabilities that include: swimming, surface diving, treading water, and staying afloat with a reasonable degree of comfort appropriate to the required task.

1. ADMINISTRATION

1.1 Organization & Responsibilities

Executive Board, in general:

The duties listed are intended only as general illustrations of the various types of work that may be performed. Specific statements of duties not included does not exclude them from the position if the work is similar, related, or a logical assignment to the position.



1.1.1 Chief Liaison Officer

Operates as the advocate between the Board and the MABAS Chiefs, communicating the directives from the Chiefs and forwarding the recommendations of the Executive Board.

1.1.2 Dive Team Leader

Responsible for the leadership and organization of the team, including but not limited to: Submitting to the MABAS Chiefs a monthly and yearly activity/expense report including goals and objectives, training cost, equipment cost, repairs and improvements . Recommending changes in guidelines, new

equipment or techniques, establish standards for the inspection and maintenance of diving and associated equipment.

1.1.3 Assistant Team Leader

Responsible for the operational oversight of the Surface Group; ensure compliance with all relevant regulations of the M.A.B.A.S Division XII Guidelines, OSFM, NFPA 1670, NFPA 1006 and future NFPA Standards.

1.1.5 Training & Safety Officer

Approve dive plans, maintain diving records of Dive Team Personnel; ensure Dive Team Members receive theoretical aspects combined with appropriate practical training. This should include but not be limited to topics such as: underwater crime scene investigation, evidence collection, small boat operations, diving first aid, limited visibility diving, light salvage and recovery, dry suit use, searching techniques, public safety dive planning, accident prevention and management, and proper use of Department and Division equipment.

1.1.6 Team Leader Attendance and Training Requirements

1.1.6.1 Team Leaders should attend a minimum of (8) of the (12) yearly MABAS meetings unless given prior approval by the Liaison or Team Leader.

1.1.6.2 Team Leaders should attend a minimum of (8) of the (12) monthly MABAS drills unless given prior approval by the Liaison or Team Leader.

1.1.6.3 Team Leaders are to function in a Command Role at a minimum of one (1) drill per year.

1.1.6.4 Incident Specialists are to be OSFM certified as: Dive Technician, Ice Dive Technician, Swiftwater Technician, Surface-Ice Technician and Watercraft Technician.

1.1.7 Dive Plan / Drill Notification

1.1.7.1 Monthly Team Leader meetings will be conducted on the 1st Tuesday of each month, excluding holidays.

1.1.7.2 Monthly Drill will be conducted on the 2nd and 3rd Saturday of each month, excluding Holiday's. Understanding that locations and permits may dictate the need to alter the dates, dates may be altered with 60 days prior notice.

1.1.7.3 The Host Team Leader will ensure that the Drill Information, Training & Safety Plan has been drafted and is available for review at the preceding months MABAS meeting. Upon review and approval of the

Executive Board, it will be distributed to all Team Members following the meeting.

1.2 General Requirements

- 1.2.1 Member departments and personnel of MABAS 12- WRT operating at water incidents shall meet all the requirements specified in Chapter 9 of NFPA 1670 (2009 EDITION).
- 1.2.2 Member departments and personnel of MABAS 12- D/SRT shall evaluate the effects of severe weather, extreme water conditions, and other difficult conditions to determine whether the present training program has prepared the organization to operate safely.

1.3 AWARENESS LEVEL

- 1.3.1 Member departments and personnel of MABAS 12- D/SRT operating at the Awareness Level shall meet all the requirements in Section 9.2 of NFPA 1670 (2009 EDITION). All members certified to the awareness level shall meet the requirements of a Competent Person as defined in this document

Awareness Level functions at water incidents shall include the development and implementation of the following:

- 1.3.2 Procedures for recognizing the need for water search, rescue or recovery.
- 1.3.3 Procedures for implementing the assessment phase.
- 1.3.4 Procedures for the identification of the resources necessary to conduct safe and effective water operations.
- 1.3.5 Procedures for implementing the emergency response system for water incidents.
- 1.3.6 Procedures for implementing site control and scene management.
- 1.3.7 Procedures for recognition of general hazards associated with water incidents and the procedures necessary to mitigate these hazards in the general rescue area.
- 1.3.8 Procedures to determine rescue versus body recovery operations.

1.4 OPERATIONS LEVEL

- 1.4.1 Member departments and personnel of MABAS 12- WRT operating at the Operations Level shall meet all the requirements specified in Section 9.2 of NFPA 1670 (2009 EDITION).
- 1.4.2 For the purposes of these procedures, there shall be five separate water-related disciplines for the Operations Level: Dive, Ice Dive, Surface Ice, Watercraft and Swiftwater/Flood.
- 1.4.3 Member departments and personnel of MABAS 12- WRT operating at the operations level shall meet all the requirements specified in Section 9.3.1 through 9.3.5 of NFPA 1670 (2004 EDITION). Member departments and personnel of MABAS 12- WRT operating at the operations level of one or more specific disciplines shall meet the requirements of Section 9.3.2 through 9.3.5 of NFPA 1670 (2009

EDITION) as they relate to the specific discipline as well as the specific requirements (reference Sections 9.3.6, 9.3.7, or 9.3.9) of that discipline listed in NFPA 1670 (2009 EDITION).

1.4.4 For personnel operating in the hazard zone, the minimum personal protective equipment (PPE) worn or carried shall include the following:

- 1.4.4.1 Personal flotation device (PFD)
- 1.4.4.2 Thermal protection
- 1.4.4.3 Helmet (as needed, appropriate for water rescue)
- 1.4.4.4 Cutting device
- 1.4.4.5 Whistle
- 1.4.4.6 Contamination protection (as needed)

1.4.5 Operations Level functions at dive incidents shall include the development and implementation of the following:

- 1.4.5.1 Procedures for the recognition of the unique hazards associated with dive and water rescue operations.
- 1.4.5.2 Procedures for serving as Tenders/surface support personnel.
- 1.4.5.3 Procedures for the identification of water characteristics.
- 1.4.5.4 Procedures for the operation of surface support equipment used in water operations.
- 1.4.5.6 Procedures for the safe entry and recovery of divers and swimmers from the water.
- 1.4.5.7 Procedures for participating in safe dive operations in any climate the organization can encounter.

1.5 **TECHNICIAN LEVEL**

- 1.5.1 Member departments and personnel of MABAS 12- WRT operating at the Technician Level shall meet all the requirements specified in Section 9.3.1 through 9.3.5 of NFPA 1670 (2009 EDITION).
- 1.5.2 For the purposes of this standard, there shall be five separate water-related disciplines for the Technician Level: Dive, Ice Dive, Surface Ice, Watercraft and Swiftwater/Flood.
- 1.5.3 Member departments and personnel of MABAS 12- WRT operating at the Technician Level shall meet all the requirements specified in Section 9.4.1 through 9.4.6 of NFPA 1670 (2004 EDITION). Members of MABAS 12- D/SRT operating at the Technician Level of one or more specific disciplines shall meet the requirements of Section 9.4.1 through 9.4.6 as they relate to the specific discipline as well as the specific requirements (reference Section 9.4.7, and 9.4.9) of that discipline.
- 1.5.4 Member departments and personnel of MABAS 12- WRT operating at the Technician Level shall meet all the Awareness and Operations Level requirements specified in

- 1.5.5 Personnel operating within an organization at the technician level shall possess a level of watermanship skill and comfort appropriate to the required task.
- 1.5.6 Technician Level functions at all water rescues shall be trained in and able to implement the following:
 - 1.5.6.1 Procedures required to planning a response within the capabilities of available resources.
 - 1.5.6.2 Procedures to implement a planned response consistent with the organization's capabilities.
 - 1.5.6.3 Procedures for conducting both boat-assisted and boat-based rescues.
 - 1.5.6.4 Procedures to conduct a "go" rescue.
- 1.5.7 Technicians at the entry level, and for any specialties utilized by an organization at the technician level, MABAS 12- WRT shall ensure provision of certification by a nationally recognized, Public Safety Dive certifying agency.
- 1.5.8 Annual fundamental SCUBA skill reviews shall be conducted to maintain public safety diver capability.
 - 1.5.8.1 Procedures for skin and SCUBA diving, including the use of any associated equipment.
 - 1.5.8.2 Procedures for the application of physics and physiology as it relates to the underwater environment.
 - 1.5.8.3 Procedures for the use of dive tables.
 - 1.5.8.4 Procedures for dealing with the various underwater environments with which the rescue diver will come into contact.
 - 1.5.8.5 Procedures for avoiding and dealing with underwater obstacles, vehicles, entanglement hazards, and structures.
 - 1.5.8.6 Procedures for the conduct and supervision of dive operations.
 - 1.5.8.7 Procedures for the use of relevant search, theory, and techniques.
 - 1.5.8.8 Procedures for the identification and management of dive-related maladies including air embolism and decompression sickness.
 - 1.5.8.9 Procedures for recognizing and managing near-drowning.
 - 1.5.8.10 Procedures for effective underwater communication systems used by the department.
 - 1.5.8.11 Procedures required to plan a response within the capabilities of available resources.
 - 1.5.8.12 Procedures to implement a planned response consistent with the organization's capabilities.
 - 1.5.8.13 Procedures for conducting both boat-assisted and boat based rescues.
 - 1.5.8.14 Procedures to conduct a "go" rescue.
 - 1.5.8.15 Procedures for self-rescue unique to ice rescue.
 - 1.5.8.16 Procedures for reach, throw, row, and go technique's unique to ice rescue.

- 1.5.8.17 Procedures for the use of watercraft, specialty craft, and specialty equipment unique to ice rescue.

2. TRAINING

2.1 Training Requirements

- 2.1.1 On an annual basis, a document identifying that all MABAS 12- WRT personnel at the Technician Level have the ability to pass the basic IADRS Public Safety Diver Swim assessment (2.5) must be maintained by diver's department Dive Team Coordinator.
- 2.1.2 It shall be the responsibility of the individual's fire department Dive Team Coordinator to verify all re-certification requirements required by MABAS 12- WRT for active and inactive divers have been met.
- 2.2 MABAS 12- WRT team members at the technician level shall be classified into the following categories:
- 2.2.1 **Active Status:** A member who is currently meeting all training requirements as defined in this document.
- 2.2.2 **Inactive Status:** A member who has not met the training requirements as defined in this document. This member is not allowed to function at the technician level (diver/swimmer) during incidents but can assist at the operations level (non-diver/non-swimmer). This member can be eligible to return to active status by correcting 50% of the previous, deficient year's training and by fulfilling the current years training requirements by 31 December of that year. In the event a member does not meet this requirement they will be removed from the team. Once removed from the team they will remain ineligible for future membership unless approved by the MABAS 12- WRT Executive Board after receiving a written request for reinstatement from the individuals Fire Chief. The member shall still be responsible for correcting any previous training deficiencies.
- 2.2.3 **Leave of Absence:** A member may submit a written request for a leave of absence for up to twelve months (12) months to their Department Coordinator. The twelve (12) month time limit shall not apply to requests for qualified medical leave or qualified military service leave. Personnel returning from medical leave are required to have written documentation from their Fire Chief stating they have been approved as "Fit for Duty" by the department physician.
- 2.4 Training data will be accumulated from 01 January through 31 December of each year. Additional training is encouraged, but dives exceeding the minimum requirement are not carried over from the previous year.
- 2.5
- 2.4.1 Each diver must successfully complete one (1) basic skills pool evaluation and five (5) open water training dives annually. At least (1) dive must be

completed per Quarter. A Validation dive qualifies as (1) required open water training dive.

- 2.4.1.1 Each member must complete (1) basic skills pool evaluation and (4) open water training dives annually.
- 2.4.1.2 Each diver must complete (1) Swiftwater, (1) Surface Support drill annually.
- 2.4.1.3 Certified Ice Divers are required to complete one (1) ice penetration training dive annually. This qualifies as meeting one (1) required open water training dive.
- 2.4.1.4 Certified Deep Divers are required to complete one (1) deep training dive annually. Deep dives are defined as dives below 60' in depth. This qualifies as meeting one (1) required open water training dive.
- 2.4.1.5 The Department Dive Team Coordinator will be responsible for obtaining and maintaining their department training records. Training documentation must be maintained by the department.
 - 2.4.1.5.1 Team Leaders will forward all individual member's certifications to the training officer for issuance, updating and maintenance of MABAS Tier II cards.
 - 2.4.1.5.2 MABAS Tier II cards shall be kept with the Chief Liaison and distributed on activation or deployment.
- 2.4.1.6 The Dive Team Coordinator is responsible for notifying the department's Chief when a diver/member has not met the minimum annual training requirements set forth in this document.
- 2.4.1.7 Active divers will receive training credit for successfully completing an advanced training program at the rate of one (1) open water dive credit awarded per class completed, to a maximum of (2) credits. Only advanced public safety dive specific training classes requiring open water practical dives provided by a nationally recognized, Agency shall be credited.
- 2.4.1.8 Active divers will receive credit for dives conducted at MABAS level call-out incidents at a maximum of (2) credits annually.

2.5 Public Safety Watermanship / Basic SCUBA Skills Proficiency

- 2.5.1 Public Safety Diving is one of the most strenuous disciplines in the fire service. Prolonged bottom times, dives requiring heavy physical exertion, entanglement

risks, long surface swims, currents, zero visibility, and adverse conditions can take a heavy toll on a diver.

2. 5.2 Physical well-being and fitness will increase a diver's safety. Applicants must have the ability to successfully complete the following watermanship evaluation to be a candidate for the MABAS 12- D/SRT.

2. 5.3 IADRS Watermanship Evaluation Parameters: There are four exercises that evaluate stamina and comfort level in the water. The applicant must have the ability to successfully complete all stations to pass the test. A maximum 10 minute interval between each exercise should be afforded each participant. Each applicant has a maximum 10-minute recovery time between exercises.

2. 5.3.1 ***Stamina Exercise 1: 500 yard swim***

The diver shall swim 500 yards without stopping using a forward stroke and without using swim aids such as dive mask, fins, and snorkel or floatation device. Stopping or standing up in shallow end of the pool at any time will constitute a failure of this evaluation station.

2. 5.3.2 ***Stamina Exercise 3: 800 yd. Snorkel/Fin Swim***

Using a dive mask, fins, snorkel, and swimsuit (no BCD or other floatation aid) and swimming the entire time with the face in the water, the applicant will swim nonstop for 800 yards.

2. 5.3.3 ***Stamina Exercise 2: 15 Minute Tread***

Using no swim aids and wearing only a swimsuit, the applicant will stay afloat by treading water; drown proofing, bobbing or floating for 15 minutes, with hands only out of the water for the last 2-minutes.

2. 5.3.4 ***Stamina Exercise 4: 100 yd. Inert Diver Rescue Tow***

Wearing full scuba equipment, and breathing air, the diver will push or pull an inert diver wearing dive gear on the surface a distance of 100 yards nonstop without assistance.

2. 5.4 All WRT personnel; Divers, Tender, Swift & Support are to complete annually.

2. 5.5 All WRT Divers are to complete annual Basic SCUBA Skills proficiency.

2.6 **Dive site preparation for Operations/Training Exercises/Incidents**

2.6.1 All Skills based Division Dive Training is to be in accordance with Emergency Response Divers International (OSFM Approved Agency) curriculum standards and/or as specified within these guidelines.

- 2.6.2 All Scenario-based Division Dive Operations training is to be in accordance with these guidelines.
- 2.6.3 A Division watercraft shall be on-station and in the water at all times, propeller disengaged and raised out of the water, within 50' of divers to be readied for immediate/emergency extraction and delivery to shore of injured divers during all open water training and incidents.

2.7 Ice dive site preparation for Training Exercises

- 2.7.1 For training dives, a triangular hole with 10' sides will be cut into the ice using a chain saw.
- 2.7.2 The cutting operation shall be done in protective attire.
- 2.7.3 The section of ice that is cut out shall be made retrievable for securing the hole at the termination of the dive.
- 2.7.4 Surface snow will be cleared on circular paths around the hole with arrows pointed toward the direction of the ice hole at 20', 50', and 100' intervals.
- 2.7.5 Some provision for positive footing for all personnel shall be employed around the hole in any of the above stated operational modes.
- 2.7.6 Any dive made under ice shall be tethered with a locking carabiner and a tender.
- 2.7.7 Prior to an under ice dive, the diver and tender should confirm the dive plan, the type of search pattern to be used, and review the line signals.
- 2.7.8 The tender shall complete a "Pre-Dive Checklist" of the diver prior to entry.

3. SAFETY PROCEDURES FOR DIVING OPERATIONS

- 3.1 It shall be the responsibility of the Incident Commander or their designee prior to:
 - 3.1.1 Conduct a Risk Benefit field analysis to identify the risks and determine the benefit of conducting the dive at each site.
 - 3.1.2 Insure that a fully dressed Safety Diver is prepared to immediately enter the water (in the event that a Primary Diver becomes entangled or needs assistance) prior to dive operations being initiated. Rescue exception applies (4.0).
 - 3.1.3 Develop an emergency action plan including transportation for an injured diver to the nearest operational hyperbaric chamber, or closest appropriate emergency medical facility.
 - 3.1.4 Develop a safety plan for all surface and dive operations prior to any operations being initiated.
 - 3.1.5 Dive operations shall be conducted with a Safety Diver and 90% Diver for every diver that is operating below the surface. Rescue exception applies (4.0).
 - 3.1.6* All water is to be presumed contaminated. Therefore, all open water dives will be conducted in dry suits and full face masks to reduce exposure to contamination.
 - 3.1.7 Proper decontamination procedures will be followed for all chemical and biological hazards.
 - 3.1.8 The Dive Tables will be referred to on all dives.
 - 3.1.9 No dives will be conducted in depths greater than 100 feet.
 - 3.1.10 A three minute safety stop is suggested on all dives.
 - 3.1.11 Injured or recovered lost diver shall be immediately extracted to shore (2.10.3).

- 3.1.12 Divers will go through a post-diving medical and field neurological examination upon exiting the water. The department team leader shall be responsible for maintaining annual baseline field neurological examinations for their team

4. OPERATIONS

Based on reliable information received from Dispatch or obtained immediately upon arrival on scene of a **Viable Victim Rescue**, a single diver may only enter the water under the following guidelines:

- a. Incident Command must be initiated/established
- b. Diver Must be in complete required equipment
- c. Diver Must be secured to a hard-line communication system
- d. Diver Must have a Line Tender
- e. Diver Must surface upon reaching 1,000psi remaining in tank.

4.1 BEFORE DIVING OPERATIONS ARE COMMENCED

- 4.1.1 A Dive Action Plan (DAP) shall be developed.
- 4.1.2 Advanced Life Support and medical transport is on-site.
- 4.1.3 Approved electronic communication system, fully-operational, must be in place before any dive operation is initiated, unless there is a rescue mode exception present.
- 4.1.4 All divers shall be line tended unless conditions dictate otherwise. The operation can only be done off-line with the approval of the Safety Officer or Dive Team Coordinator.
- 4.1.5 All divers shall be technician level and all line tenders must be trained to a minimum of operations level.
- 4.1.6 The “diver-down” flag shall be prominently displayed during all dive operations, unless currents or lack of overhead boat traffic dictate none is needed.
- 4.1.7 Enclosed or confined space dives that are outside the scope and training of the organization shall not be conducted.
- 4.1.8 Diving operations shall not exceed the no-decompression limits or dive computer limits for any given dive.
- 4.1.9 Any diver who exceeds the no-decompression limits of the dive tables shall be administered high flow oxygen and may be transported to an appropriate hyperbaric chamber for these types of incidents.

4.2 EMERGENCY PROCEDURES/EMERGENCY ACTION PLAN

- 4.2.1 When electronic voice communications are lost between the diver and his/her tender, the diver shall be signaled by 4.10.5 of this document. If line pull signals cannot be immediately established, deploy the Safety Diver.
- 4.2.2 When electronic voice communications are lost between the diver and his/her tender, operations shall be suspended pending the restoration of electronic voice communication.
- 4.2.3 All accidents, injuries, or illnesses incurred during dive operations shall be reported to the Incident Command as soon as possible.

- 4.2.4 In the event of a water operation accident or emergency, the “Emergency Traffic” procedure will be utilized, per MABAS “General Operating Procedures.”
- 4.2.5 Anytime a diver is required to surface due to injury, catastrophic equipment failure, or “out of air emergency”, the diver will be treated as if he/she has encountered a pressure-related injury and shall be evaluated by the Medical Sector.
- 4.2.6 Anytime a diver becomes entangled or entrapped during a dive, the safety diver shall be deployed immediately to mitigate and free the diver, and to provide the Dive Operations Officer information on the safety of further dives.
- 4.2.7 Anytime there is a lost or missing diver incident, the last seen point will be identified and marked immediately; a permanent support boat or buoy will be stationed at that location.
- 4.2.8 Any boat or buoy used at the last seen point should not be moved for any other purpose until recovery has been made.
- 4.2.9* If a lost or missing diver is not immediately located (within one minute) then the Emergency Action Plan shall be initiated.

4.3 THE DIVE SHALL BE TERMINATED WHEN:

- 4.3.1 Ultimate responsibility for safety rests with the individual diver. It is the diver’s responsibility and duty to refuse to dive or terminate a dive if, in his judgment, conditions are unsafe, unfavorable, or if diving would violate the precepts of his level of certification or training, or for any other reason that the diver deems reasonable.
- 4.3.2 Dive Tender indicates that due to air consumption rate or emergency that diver is required to surface or any reason the tender deems reasonable.
- 4.3.3 The cylinder pressure has 1,000 PSI remaining in the cylinder and/or;
- 4.3.4 Loss of electronic communications (refer to 4.2), and/or;
- 4.3.5 In the opinion of the Competent Person and/or the Safety Officer the dive should be terminated for safety reasons and/or;
- 4.3.6 The depth of the dive operation exceeds the set maximum depth of 60 feet, unless specifically trained and certified in deep dive techniques.
- 4.3.7 A No Decompression Limit is being reached

4.4 FACTORS TO CONSIDER FOR A RISK/BENEFIT FIELD ANALYSIS

- 4.4.1 Where Underwater Search & Rescue/Recovery operations are requested, the Incident Commander, Incident Specialist, Dive Team Leader or his/her designee should consider the following factors:
 - 4.4.1.1 Anytime the IC or Dive Team Leader determines the risk to dive team member exceeds the benefit of the dive operation, the dive shall be terminated until such risk can be mitigated.
 - 4.4.1.2 Determine that operations at the site will not exceed the department’s capabilities.
 - 4.4.1.3 Is the operation that is being requested a ‘Rescue or Recovery Operation?’

- 4.4.1.4 Ability to establish a credible 'Last Seen Point' from on-site witness(es.)
- 4.4.1.5 The dive operations will/will not exceed sixty feet (60') in depth.
- 4.4.1.6 The current of the water does not exceed one half (.5) knot, unless specifically trained and certified in current diving
- 4.4.1.7 The divers can safely operate in water conditions that are present.
- 4.4.1.8 There are sufficient personnel: divers, dive tenders, and equipment on-site to conduct operations.
- 4.4.1.9 All safety aspects are considered.
- 4.4.1.10 All medical safety issues can be addressed by on-site resources.
- 4.4.1.11 Assets on-site will not meet the demands for a safe operation; are other qualified resources available that can provide support (i.e. ARA, MABAS)?

4.5 DEVELOPING THE DIVE ACTON PLAN

4.5.1 Planning of a dive operation shall include as a minimum:

- 4.5.1.1 Diving mode (training or operational; rescue/recovery). Determine that the objectives of the dive are within the scope of these standard operating guidelines and procedures.
- 4.5.1.2 Determine if dive operations will be shore-based, boat-based, or boat-assisted.
- 4.5.1.3 Surface and sub-surface conditions and hazards.
- 4.5.1.4 Emergency procedures are identified.
- 4.5.1.5 Approximate number of dives anticipated.
- 4.5.1.6 Location(s) of proposed dive(s).
- 4.5.1.7 Estimated depth(s) and bottom time(s).
- 4.5.1.8 Current environmental conditions and expected changes.
- 4.5.1.9 Proposed work, equipment, and other resources needed.
- 4.5.1.10 Diving shall be coordinated with other known activities in the area that may interface with the diving operation.
- 4.5.1.11 Minimum of three (3) divers on scene for a rope-based search pattern operation.
- 4.5.1.12 Type of search pattern that will be utilized for the operation.
- 4.5.1.13 Incident control zones are broken into three categories: hot zone, warm zone, and cold zone.
 - A. **Hot Zone** (*Restricted, High-Hazard Area*): The immediate hazard area surrounding the rescue/recovery operation which extends far enough to provide safety to personnel operating inside and outside of the zone, commonly 6' from waterline. (Should/can be marked with spray paint or flags)
 - B. **Warm Zone** (*Limited Access Area*): The area surrounding the hot zone and bounded by the cold zone. Entry is restricted to emergency response personnel, as well as those assigned by the Incident Commander, commonly 7-20' from waterline. (Should/can be marked with spray paint or flags)

- C. **Cold Zone** (*Support Area*): The area surrounding the warm zone which presents no hazards to emergency response personnel and equipment. It is reserved for emergency services functions only, such as the command post and other support functions deemed necessary to control the incident.

4.6 **BRIEFING**

- 4.6.1 All Division/Group Officers, Divers, Tenders, and Medical Personnel will participate in an operational briefing before operations are initiated.
- 4.6.2 An accelerated briefing can be done in rescue mode.

4.7 **PRE-DIVE SAFETY CHECK**

- 4.7.1* Identify objectives for the operation and complete the Pre-Dive Checklist document.
- 4.7.2 Each operational diver (primary, safety, and 90%) must be asked and respond “go” or “no go” to his/her physical, mental capabilities, equipment, and dive plan.
- 4.7.3 Identify all entry and exit points.
- 4.7.4 Review of all primary and contingency communication systems
- 4.7.5 Emergency protocols.
- 4.7.6 Beginning and ending tank pressure
- 4.7.7 Reporting of any physical problems or adverse psychological affects.
- 4.7.8 Complete baseline Rapid Field Neuro Examination Document, if not available on site.

4.8 **POST-DIVE RAPID FIELD NEURO EXAMINATION**

- 4.8.1 **See document in appendix**

4.9 **TENDER/ SHORE OPERATIONS**

- 4.9.1 Tenders/Shore Support personnel are an integral function of a Water Rescue/Recovery operation. Tenders will assist the Diver in the selection, inspection, donning/doffing of equipment. They will have primary and secondary functions of:
 - 4.9.1.1 Establishing scene safety
 - 4.9.1.2 Staging area for equipment
 - 4.9.1.3 Decontamination Area
 - 4.9.1.4 EMS Staging area
- 4.9.2 Tenders/Shore Support Personnel will ensure they have the appropriate PPE prior to engaging in Training or Operations:

- 4.9.2.1 Environmental protection
- 4.9.2.2 Foot, Hand (exam gloves under work gloves), Eye (splash) protection
- 4.9.2.3 Personal safety; PFD, light (Chem-lite for night), whistle & cutting tool

4.9.3 Tenders/Shore Support personnel will ensure the following:

- 4.9.3.1 Choose correct equipment based on diving mode
- 4.9.3.2 Monitor diver air consumption
- 4.9.3.3 Perform initial safety inspection of equipment prior to donning
- 4.9.3.4 Perform final safety inspection of equipment prior to entry into water; check for equipment to be secured, functioning, streamlined etc. to reduce entanglement hazards.

4.10 DIVE OPERATIONS

- 4.10.1 During all dive rescue and recovery operations the Incident Management System will be used.
- 4.10.2 The Incident Commander or Competent Person as assigned by the IC, will be in charge of diving operations.
- 4.10.3 ALS capable medical care (dedicated to public safety personnel) shall be on scene for all dive training and operations.
- 4.10.4 A “Scene Evaluation and Risk/Benefit Analysis” shall be completed before rescue divers enter the water.

- 4.10.4.1 Secure appropriate resources for site control in DAP.
- 4.10.4.2 Determine the last seen point through witness interviews, visual reconnaissance, or physical evidence, and the use of reference objects.
- 4.10.4.3 Deploy Sector Scan Sonar and confirm type of search pattern(s).
- 4.10.4.4 Make entry to minimize turbidity, and maximize safety.
- 4.10.4.5 Search last seen point upon initial entry.
- 4.10.4.6 If victim is not located, start search pattern approximately one third of the distance of the last seen point from known or closest point of entry.
- 4.10.4.7 When a line tended operation is used the diver must be in a harness system with a quick release line tether mechanism.
- 4.10.4.8 A baseline “Rapid Field Neuro Exam” will be conducted annually on all divers, and as soon as possible after exiting the water as in 4.8 of this policy.
- 4.10.4.9 Negative results must be reported to the EMS Group immediately.

4.10.5 The following are line signals for tethered diver down operations.

Tender to Diver

- 1 pull** – Are you OK?
- 2 pulls** – Stop, turn, change direction,

Diver to Tender

- 1 pull** – I’m OK.
- 2 pulls** – Give me more line.

take out more line.

3 pulls – Surface.

4 pulls – Stop stay on bottom, 2 resume

3 pulls – Found Object.

4 pulls – Emergency, Deploy
Safety Diver.

4.11 DEEP DIVE OPERATIONS

4.11.1 A Deep dive is any dive to a depth greater than sixty (60) feet.

4.11.2 Divers must hold a recognized OSFM approved agency “Deep Diver” certification to make a dive greater than sixty (60) feet.

4.11.3 No dive involving MABAS 12- D/SRT jurisdiction shall exceed one hundred (130) feet. Dives greater than this depth are beyond the scope of the D/SRT.

4.12 NIGHT DIVE OPERATIONS

4.12.1 A risk benefit analysis shall be done prior to night diving operations during recovery mode operations.

4.12.2* Proper lighting and additional equipment will be used to ensure diver safety.

4.13 ICE DIVE OPERATIONS

4.13.1 Command must be keenly aware of the adverse effects of cold exposure to all personnel.

4.13.2 Adequate protection from the cold for support personnel, primary divers, back up divers, equipment, victims, witnesses, and command personnel must be established.

4.13.3 Rehabilitation and definitive care measures for cold exposure injury victim(s) shall be addressed.

4.13.4 Cold exposure has been identified as a possible independent factor for increased risk of decompression sickness.

4.13.5 Any dives in bodies of water with any portion of the surface covered with ice or any dive in which the surface is not directly accessible shall be considered an ice dive/overhead environment operation requiring implementation of the procedures in this section.

4.13.6 Any dive made under ice shall be tended with the harnessed diver attached with a LOCKING CARABINER in the locked position to the tether line, no less than 3/8” diameter and anchored to a fixed object.

4.13.7 A quick release line tether system **IS NOT** to be used in public safety ice dive operations.

4.13.8 Divers working under ice shall be given a twenty (20) minute window of operation within the 1,000 psi minimum cylinder pressure parameter.

4.13.9* While working under ice, the diver will be restricted to a working area that will not exceed a radius twice the depth of the water or 50’ from the entry hole to be determined by the Lateral Distance Equation.

4.13.10 Personnel should dress for possible long-term exposure to cold climate conditions. Bunker/Turnout gear **IS NOT** allowed on the ice.

4.13.10.1 If personnel are in Bunker/Turnout gear with a Class V PFD – it is recommended that they wear the PFD underneath the coat and wear a Hi-Vis vest to indicate that they have the appropriate PFD on.

4.13.11 Support personnel will be responsible for the prevention of freezing equipment. Tanks and regulators must be protected from freezing temperatures until the diver is ready to deploy.

4.13.12 A well protected, heated area with water and warm liquids available should be provided for all personnel involved in the incident.

4.13.13 Traction material around the entry hole and work area must be used. The material used can be, but not limited to, snow fencing, oil dry, sand, walk boards, wood chips, etc. DO NOT use salt or other ice melting products.

4.13.14 The “Lost Diver” procedure under the ice is as follows:

4.13.14.1 The **“Lost Diver Tender”** will mark the line when he/she no longer feels the diver on line. This identifies an approximate distance out.

4.13.14.2A marker will be placed at the location the tender is standing and at the location on the opposite side of the hole in the direction the lost diver was traveling.

4.13.14.3 The Incident Commander will be notified and the safety diver deployed.

4.13.14.4 Deploy the safety diver 30 degrees to the left and 30 feet past the lost divers last known position.

4.13.14.5 The safety diver swims in a circular search pattern against the underside of the ice.

4.13.14.6 When the safety diver is deployed, the 90% diver moves into the back-up position.

4.13.14.7 The safety diver holds the search line in his/her right hand and ensures good tension on the line by swimming away from the line.

4.13.14.8 The **“Lost Diver”** will stop, look, orient self and begin a safe ascent to the surface.

4.13.14.9 Look up for the underside of the ice and look for light from ice entry hole or spokes.

4.13.14.10 Be vertical and keep one hand on the underside of the ice and wait for the safety diver or safety diver’s line.

4.13.14.11 Be alert for sight or feel of the safety diver’s line.

4.13.14.12 When SPG reads 500psi inflate B/C and release/ditch your weight belt.

4.13.14.13 When the safety line is located, signal three pulls in both directions.

4.13.14.14 Hold onto the line and the tender will pull you in.

4.13.14.15 EMS personnel will be on standby to receive divers.

4.14 VEHICLE IN THE WATER DIVING OPERATIONS

4.14.1.1 When a vehicle is fully or partially submerged, the following procedure will be used:

- 4.14.1.1 A scene evaluation will be conducted.
- 4.14.1.2 Determine Rescue or Recovery Mode.
- 4.14.1.3 **In Rescue Mode**, due to entanglement risks, penetration of the vehicle shall be done with extreme caution.
- 4.14.1.4 A tow truck operator will be immediately dispatched to the scene.
- 4.14.1.5 The primary diver is to locate the vehicle using an approved search pattern.
- 4.14.1.6 Once the vehicle is located the diver will communicate the finding to his/her tender and attach a reference line or tow strap (if on-scene) to the vehicle.
- 4.14.1.7 The primary diver shall then conduct a quick 360 degree search around the vehicle. He/she shall perform a visual recon of the vehicle from the exterior.
- 4.14.1.8 **In Recovery Mode**, the primary diver shall not open doors or windows, thus reducing the chance of occupants or evidence being lost.
- 4.14.1.9 The primary diver will then return to the reference line and assists or wait for the secondary diver.
- 4.14.1.10 The secondary diver will follow the reference line to the vehicle, attach a tow strap or cable to the vehicle, and wait for the primary diver.
- 4.14.1.11 Both divers will then follow the reference line back to the surface.
- 4.14.1.12 The vehicle will be pulled from the water and the debris field will be cleared (Sonar) for any victims or evidence that may be out of the vehicle.

4.15 WATERCRAFT (BOAT) OPERATIONS

- 4.15.1 It is the responsibility of the IC, Incident Specialist, department Dive Team Leader, or the Competent Person to determine if the rescue operations will be shore-based or boat-based operations.
- 4.15.2 It is the responsibility of the Safety Officer, Dive Team Leader, and/or the Competent Person to ensure that all personnel operating boats during training and incidents are properly trained in accordance with OSFM Watercraft standards and operate within the guidelines of this document.
- 4.15.3 It is the responsibility of the IC, Dive Team Leader, or the Competent Person to establish site control and manage all public safety watercraft operating in the secure area in which divers may be functioning.
- 4.15.4 It shall be the responsibility of the Safety Officer to ensure a safety briefing is conducted concerning localized hazards with all boat handlers that are operating at the site.

4.15.5 In the event of other agencies being on site with boats and operating in the area of the divers, it is the responsibility of the Safety Officer to ensure that all other watercraft are briefed on the area of operations and insure that a communication system is in place before the initiation of watercraft operations.

4.16 **Surface Ice Operations**

4.16.1 No Ice is Safe Ice - any ice you respond to, and perform a rescue on, can break at anytime, at any place. If Awareness Level is the entirety of your training, DO NOT GO OUT ON THE ICE!

4.16.1.1 Identify hazards to life and health

4.16.1.2 Assess the number of victims, and if possible, the victims' conditions

4.16.1.3 A.S.A.P.S (Aggressive, Self-Rescue Capable, Alert but unable to help, Passive, Submerging)

4.16.2 Ice rescue Technician and/or an ice-diving-rescue-certified diver as an advisor at the command post, if possible.

4.16.3 Communication is imperative. Calm aggressive victims to get them to stop fighting to get out of the hole, command Self-Rescue Capable victims to follow instructions, and forcefully communicate to "energize" Alert victims into helping as much as possible. Powerful communication might be able to change a Passive victim into an Alert one.

4.16.4 The moment it becomes necessary to set foot on the ice, the operation requires Technician Level rescue. The technician must be able to swim and handle the exertion.

4.16.4.1 Use of an insulated water rescue suit is required

4.16.4.2 A tether line shall be attached to the REAR of the suit and tended at all times the rescuer is in the water.

4.16.4.3 Rescuers may need to take tools including but not limited to ice awls, pike pole, chain saws, ladder, webbing, and ropes. (The situation presented will determine many of the equipment needs.)

4.16.4.4 Rescuers working on ice should use all means to distribute their weight over the surface and be prepared for breakthrough at all times. Use of a ground ladder is a recommended method of accomplishing this.

4.16.4.5 When using the Rapid Deployment Craft as a platform on ice rescue operations the stern of the RDC should be tethered to assist in returning to shore.

4.16.5 If submergence has occurred determine if the situation is a rescue or recovery based on time of submergence

4.16.6 **RESCUER SAFETY**

4.16.6.1 An equal number of backup rescuers should be dressed and ready in case they are needed.

4.17 **Swiftwater/Flood Operations**

4.17.1 **Command Responsibilities**

4.17.1.1 After assuming Command, Command must secure the immediate area and assure no more citizens enter the water. Well-intentioned but untrained citizens can quickly become victims. Command must identify the problem and make a decision whether to operate in the Rescue or Recovery mode. If operating in the rescue mode, Command should consider all of the potential hazards to rescuers and victims considering the risk/benefit factor. (A risk/benefit factor is a subjective decision that weighs the benefits of what is to gain versus what can be lost if the worst happens.) If the benefit is high, and the risk to rescuers is low, Command should move forward with the action plan.

4.17.1.2 If Command is operating in the rescue mode, a quick assessment of the hazards associated with the water must be made (i.e., speed, temperature, hydraulics, debris, and possible contamination). If the victim can be seen, Command should determine if the victim is in immediate life-threatening danger or is relatively safe and secure for the moment. If the victim is in immediate life-threatening danger, rescue must be quick.

4.17.2 **Rescue Operations**

4.17.2.2 Rescue options will be considered and executed in order from low risk to high risk. "Reach-Throw-Row-Go" shall be the proper order of execution to affect rescue.

1. **Reach** the victim with whatever means possible (i.e., pike pole, stick).

2. **Throw** the victim a throw rope bag. The victim should grab the rope, but not tie it around himself/herself
3. **Row** is the next rescue operation for consideration. Rapid Deployment Craft based operations can be a safe and effective means of rescue.
4. **Go** should be the next consideration. Any time a rescuer is placed into the water to affect rescue, it is considered to be a dangerous operation. Rescuers can be at extreme risk. Prior to placing a rescuer in the water, Command and the rescuers involved should consider the risk/benefit factor again.

3.17.3 Safety

1. **Upstream Safety.** This safety consists of personnel whose responsibility would be to watch for and advise Command of any obstacles and/or hazards that may be floating downstream and may hinder the rescue operation.
2. **Downstream Group.** This group consists of personnel whose responsibility would be to be prepared to rescue victims and rescuers that may be swept downstream. This group may provide the tension diagonal. All personnel in this group should have throw rope bags in hand. There should be downstream personnel on both sides of the river, or following the flow.
3. **River Right/Left Group.** Command should assign personnel to both sides of the operation that are being conducted from. Personnel assigned to this group could be responsible for rigging the opposite end of a highline, tension diagonal or possible rescue/safety swimmers.

4.17.4 **Rescue Group.** Personnel assigned to this group are responsible for developing an action plan with Command. Once the action plan has been developed, rescue group will be responsible for executing the plan in the safest possible manner

4.17.5 **Boat Group.** Personnel assigned to this group shall be safety for rescuers and victim(s).

4.17.6 Recovery Operations

Recovery starts after 90 minutes of confirmed drowning (underwater). This is regardless of water temperature. A switch from rescue to recovery shall take place with all members aware. Another look at the Risk/Benefit factor should be at this time with a reassessment of the operation.

5. SUPPORT

It is recommended to the IC to have the MABAS 12- WRT conduct a final scan/audit of the complete area of operations with the sector scan sonar.

5.1 Return to Service

- 5.1.1 All equipment used shall be inventoried prior to returning to service.
- 5.1.2 All equipment shall be cleaned and/or decontaminated, dried and inspected, prior to returning to service.
- 5.1.3 Any MABAS damaged or missing equipment shall be tagged inoperable and reported in writing to the Division Dive Team Leader within twenty-four (24) hours.

5.2 POST INCIDENT ANALYSIS

- 5.2.1 Determine if the objectives of the dive were achieved.
- 5.2.2 If objectives were not met, what factors caused the objectives to not be met and identify what changes in the Dive Action Plan need to occur before initiating further dives.
- 5.2.3 Identify additional information obtained from personnel involved in the dive.
- 5.2.4 Ensure that all pertinent information has been recorded.
- 5.2.5 Identify any deficiencies that may exist in training, dive planning, equipment or these guidelines and procedures.

5.3 MEDICAL STANDARDS

- 5.3.1 All divers shall pass a department physical administered by the department physician.
- 5.3.2 A diver shall be required to obtain a medical release from the department physician before resuming diving activities after any diving accident resulting in injury to the diver.
- 5.3.3 A diver shall be required to provide a medical release from the department physician before resuming diving activities due to any injury, illness, or surgery that resulted in the diver being off-duty or being placed on light-duty.

5.4 DIVING EQUIPMENT

- 5.4.1 All equipment shall be subject to inspection before and after all dives, and all serialized equipment tested and certified on an annual basis as defined by the equipment manufacturer.
- 5.4.2 Only those makes and models of equipment specifically approved by the diver's department shall be used, with appropriate training.
- 5.4.3 All inspections, tests, and maintenance must be accomplished by certified personnel or a facility approved by the department.
- 5.4.4 All equipment maintenance shall be recorded and logged by the department Dive Team Leader.
- 5.4.5 Regulators first and second stage shall be environmentally sealed.
- 5.4.6 All Scuba cylinders shall be in current VIP and hydrostatic testing requirements as mandated by regulatory agencies and manufacturer requirements.
- 5.4.7 Scuba cylinder shall be:
 - 25.7.1 Hydrostatically tested per DOT Standards.
 - 25.7.2 Visually inspected at least every twelve (12) months.
- 5.4.8* All divers participating in underwater operations must be equipped with the minimum required equipment.

5.5 PERSONNEL RECORDS AND DIVE LOGS

- 5.5.1 The Dive Team Leader shall maintain training records for each diver.
- 5.5.2. It shall be the responsibility of the department Dive Team Leader to maintain a file for each diver that contains all pertinent documentation with up-to-date information.
- 5.5.3 The Dive Team Leader shall be responsible for maintaining permanent records for all scuba equipment, including inspection and testing records, maintenance, and damage reports.
- 5.5.4 All diving accidents requiring recompression, or that result in serious injury or death, shall be reported to the Chief of the Department and to all Local, State, and Federal agencies.
- 5.5.5 The Dive Team Leader shall maintain records for each dive training or operation.
- 5.5.7 Each diver shall maintain a dive logbook.

Annex A

4.7 Pre-Dive Safety Check

MABAS 12 D/SRT– Diver Checklist

DIVER: _____ TENDER: _____ DATE: _____

- _____ WET/DRY SUIT - zipper closed, seals checked
- _____ HOOD – In place and ON
- _____ Gloves – In place and ON
- _____ HARNESS with QUICK DISCONNECT SNAP-SHACKLE (open water) or
- _____ CARABINER (ice) – ON and locked
- _____ WEIGHT SYSTEM – Diver finds weight releases
- _____ AIR – ON
- _____ ALTERNATE or REDUNDANT AIR SOURCE – ON and ready
- _____ FULL FACE MASK – Ready, exhale first, take 3 breaths
- _____ DRY SUIT INFLATION HOSE – On and functional, press inflator 3 times
- _____ BOUANCY COMPENSATOR – On and functional, press inflator 3 times
- _____ PRESSURE GAUGE, DEPTH GAUGE, COMPASS – Tender checks, gauges
- _____ All hoses trim to the body and secured
- _____ 2 CUTTING TOOLS – Diver, without looking, finds 1st, and 2nd, cutting tools
- _____ FINS – Ready with ankle weights
- _____ REVIEW OBJECTIVE
- _____ REVIEW EMERGENCY PROCEDURES
- _____ COMMUNICATION EQUIPMENT – Ready
- _____ REVIEW LINE SIGNALS

TENDER TO DIVER

- 1 Pull – Are you OK?
- 2 Pull – Stop, turn, change direction, take out more line
- 3 – Surface
- 4 – Emergency, stay on bottom

DIVER TO TENDER

- 1 – I'm OK
- 2 – Give me more line
- 3 – Found object
- 4 – Emergency, Deploy Safety

BEGINNING TANK PRESSURE _____ PSI START DIVE TIME: _____

BEGINNING PONY BOTTLE PRESSURE _____ PSI

TANK PRESSURE _____ PSI 5 MINUTES

TANK PRESSURE _____ PSI _____ MINUTES

TANK PRESSURE _____ PSI _____ MINUTES

ENDING TANK PRESSURE _____ PSI END DIVE TIME _____

MAX. DEPTH: _____

TOTAL BOTTOM TIME: _____

Annex A

4.13.14 Lost Diver Emergency Procedure – Open Water

Diver off tether / loss of communications

- 1) Command and EMS shall be notified immediately. Additional divers and resources readied for immediate deployment.
- 2) Deploy safety diver immediately to last position of primary diver. 90% diver fully dresses and is tethered to an additional search line.
- 3) Safety diver follows the primary line without putting tension on the primary diver line.
- 4) Safety tender should confirm length of line deployed out to the primary diver and stop the safety diver at the same distance.
- 5) The safety diver should do a sweep of the immediate area. Should the primary diver not be found, the safety diver should immediately be instructed to begin a search pattern at that line length. Complete one full sweep.
- 6) If the primary diver is still not found, the safety diver shall move 10 feet closer to the position that he was first deployed from and begin sweep patterns.

Diver in Distress

- 1) Command and EMS shall be notified immediately and additional divers and resources readied for immediate deployment.
- 2) Deploy safety diver immediately to last position of primary diver. 90% diver fully dresses and is tethered to an additional search line.
- 3) Safety diver follows the primary line without putting tension on the primary diver line.
- 4) Safety diver must be ready to share air immediately upon making contact with the primary diver.
- 5) Safety diver makes contact with the primary diver and assesses diver (confirms diver in distress problem with hand signals. The primary diver is to be assisted with air or disentanglement and then assisted to the surface.

Approved hand signals:

Diver's hand in a circle at the chest : I'm entangled, then moves hand to the problem area

Diver's hand directed to mask: I'm out of air or have an air issue

Diver's hand taps his chest: I'm injured or otherwise stricken

Annex A

4.13.9

**Lateral Distance Formula
For
Ice Dive Operations**

$$S = \sqrt{D^2 + L^2}$$

S = Length of Line

D = Depth

L = Lateral Distance

Example: 20 ft. Depth at a 50 ft. Lateral Distance

$$S = \sqrt{20^2 + 50^2} \text{ or } S = \sqrt{400 + 2500} \text{ or } S = \sqrt{2900} \text{ or } S = 54 \text{ ft.}$$

Lateral Distance

Depth

	<i>10'</i>	<i>20'</i>	<i>30'</i>	<i>40'</i>	<i>50'</i>	<i>60'</i>	<i>70'</i>
<i>10'</i>	15'	23'	32'	42'	51'	61'	71'
<i>20'</i>	23'	29'	36'	45'	54'	64'	73'
<i>30'</i>	32'	36'	43'	50'	59'	67'	77'

40'	42'	45'	50'	57'	64'	72'	81'
50'	51'	54'	59'	64'	71'	78'	86'

MAXIMUM LINE LENGTH NOT TO EXCEED

Annex A

4.12 NIGHT DIVE OPERATIONS:

All night divers shall carry and use a flashlight in conjunction with a flashing strobe, chemical stick, or constant burning light mounted as high as possible.

To help insure diver safety, proper lighting shall be used to illuminate the dive scene. Regarding shore dives, a shore light shall be used to mark the entry / exit point and area lighting shall be used to assist in diver ingress and egress.

4 a. Minimum Required Dive Equipment

Dry-suits:

- Vulcanized rubber dry-suits with attached dry hoods or rated chemical protective suit required.
- Vulcanized rubber suits rated chemical protective suit required for all new purchases (current in-service dry suits allowed until end of service life)

Dry Gloves:

- Required dry gloves, recommended attached to the suit.

Full Face Masks:

- Style of mask to be consistent with public safety diving requirements – Full Face;
- Engineered as a single system as designed by manufacturer,
- Adaptable & compatible to electronic communications equipment as required by D/SRT SOG's,
- Compatible with temperature extremes and contaminated water

Regulators:

- Manufacturer designed for ice dive operations (i.e. environmentally protected); mandatory for ice dives and new purchases (recommended for open water dives for existing in service regulators)
- Alternate air source mandatory, either octopus with 36' hose and 19 cu ft pony or minimum 19 cu ft pony bottle with regulator (AIR II type BCD inflator hose mounted regulator will not count towards meeting this requirement)
- Annual service required

2 gauge console consisting of pressure gauge, depth gauge or hardwire electronic equivalent no hose less air integrated computers or gauges allowed.

Pony Bottles:

- 19 cu ft minimum size
- Pony bottle regulator meets requirements of regulator section above with minimum one second stage with minimum 36" hose and pressure gauge
- Must be able to be easily and quickly released from mount when needed
- Switch block recommended from redundant air supply to mask

BCD:

- Minimum lift of 35 lbs, mandatory for new purchases (existing equipment allowed until end of service life)
- Power inflator mandatory
- Pockets for streamlined storage of tools & equipment (recommended)

Octopus or Alternate Air Source mouthpiece retainer system:

- Either neck mount (bungee around neck) or mounted in readily accessible and visible in "Golden triangle" area of chest
- Must be quick release requiring one hand operation

Search Line Attachment:

- Harness or weight system harness with built-in attachment point connected to a quick disconnect snap shackle

Weight Systems:

- **System must allow for positive buoyancy when released causing diver to ascend**
- Release mechanism must be readily accessible, located in the lower torso area and readily apparent to safety diver
- Separate weight placed on diver and BCD. (doffing for disentanglement, prevents unintentional ascent)
- One system must be able to be dumped and achieve positive buoyancy causing diver to ascend immediately without having to release second system
- Systems MUST be released/Tested for release minimum semi-annually

Cutting Tools:

- Minimum two cutting tools, one mounted in the "golden triangle" area of the chest and one low point of attachment
- Tools shall have the ability to cut monofilament line & seat belts

Ice Equipment:

Harness device with locking carabineer required for ice or overhead environments independent of BCD

- Minimum 3/8 inch tether line secured to fixed object with locking carabineer

- No quick disconnect snap shackles may be used during an ice dive

Communications Equipment

- Two way electronic communications allowing for diver to tender, diver to safety diver, diver to 90% diver verbal two way communication (full duplex allowing simultaneous bidirectional communication is recommended)
- Required by 01/01/09

Fins: Recommend adjustable for walking/climbing/swimming

Tank:

- Within 5 year hydrostatic test date and current yearly VIP sticker displayed
- 80 cubic foot minimum tank size
- “J” valve not allowed

Signal whistle: Placed on all BCD’s and PFD’s

D/SRT passport & ID card:

Blue Passport indicating Level of Certification/Operational functions approval

Yellow Passport indicating Probationary status, training/operational functions approval.

ID card TBD through MABAS

Night Dive additional equipment:

- Flashlight

Flashing strobe, constant burn light or chemical light stick

The Rapid Field Neuro Exam

Mental Status:

- 1) Ask the diver to state his name, where he is, the time of day, and most recent activity.
- 2) Evaluate his speech for clearness and appropriateness.

Cranial Nerves:

- 1) Sight / Eye movements:

- a) Hold up different numbers of fingers for the diver to count.
- b) Have the diver follow your finger with his eyes while keeping his head straight. Move your finger up, down, left and right. Watch for nystagmus.

- 2) Facial Movements:

- a) Place your fingers at the angle of the diver’s jaw and ask him to clench his teeth.
- b) Ask him to wrinkle his forehead as you smooth the skin.
- c) Instruct him to stick his tongue out and move it in all four directions.
- d) Check the diver’s smile for symmetry.

- 3) Head / Shoulder Movement:

- a) Ask the diver to tilt his head back and swallow. Watch for his “Adams Apple” to move.
- b) Push down lightly on his shoulders, asking him to shrug.
- c) Put your hand on one side of the diver’s face and ask him to push against it. Do the same with the other side, and on the forehead and back of the head.
- 4) Hearing:
 - a) Rub your fingers together close to the diver’s ears to identify the sounds he’s to listen for.
 - b) Ask him to close his eyes.
 - c) Move your hand away from his ear and make the sound again.
 - d) Continue to make the sound as you move your hand back towards the ear.
 - e) Ask him to tell you when he can hear the sound again.

Sensations:

- 1) The objective is to evaluate the sense of light touch and make sure it’s equal on both sides of the body.
- 2) Sensations are checked with the diver’s eyes closed, pockets empty, and the diver dressed down to light clothing or bare skin.
- 3) Tell the diver that the light touch should feel normal and the same on both sides of his body.
- 4) Evaluate the body sections, checking the right and left sides at the same time. Overlap the sections slightly. 5) Run your fingers across the forehead, down the sides of the face and along the jaw line.
- 6) Then run your fingers down the diver’s chest, abdomen, front of arms, legs and across the hands.
- 7) Turn him around and run your fingers down his back, buttocks, and the backs of the arms and legs.

Muscle Tone:

- 1) The objective is to evaluate muscle tone and determine that it’s equal on both sides of the body.
- 2) Have the diver bend his arms so that his hands meet in the center of his chest. With his arms bent have him bring his elbows up level with his shoulders (or demonstrate the move and say “Do this”).
- 3) Tell him to push against you as you push his elbows up, then down, and pull his hands away from his chest and push them back.
- 4) To evaluate grip strength in each hand, ask him to squeeze two of your fingers.
- 5) Leg evaluation: With diver sitting, evaluate both legs. Put your hand on his thigh and ask him to pick the leg up against resistance. Then put your hand under the thigh and ask him to pull down. Put your hands on the front of his lower legs and ask him to push out. Then put your hands behind the legs and ask him to pull back.
- 6) Leg evaluation: With diver laying, evaluate both legs. Ask him to do a straight leg raise as you lightly push down on the leg. Have him bend the leg up and push against your hand as you hold his foot.
- 7) Foot evaluation: Have the diver pull his feet up as you push them down and then push against your hands as if pushing on a pedal.

Balance and Coordination:

- 1) The objective is to make sure that the diver can hold himself upright, move without being off balance and that he has normal hand eye coordination. Protect the diver from falling.
- 2) Romberg Test: Have the diver stand upright with his eyes closed, feet together and arms outstretched in front of him. Ask him to stand this way for several seconds. Then ask him to walk in place, bringing his knees up. Eyes remain closed.
- 3) Heel-shin slide: If the diver is laying down, have him place the heel of one foot on the opposite leg, just below the knee. Then have him run the heel down his shin to the ankle. Do both legs.
- 4) Alternating hand movements: Have the diver alternately touch his index finger to his nose and then to your finger, held about 18” (.5 meters) away from his face. Repeat the movement several times and test both hands.

Vital Signs (If trained and equipped):

- 1) The objective is to evaluate the findings in the Rapid Field Neuro Exam with the baseline vitals.
- 2) Blood pressure
- 3) Pulse
- 4) Respiration’s

Rapid Field Neuro Checksheet

Driver's Name: _____ Name of Examiner: _____

Date: _____ Initial Complaint: _____

Time	Notes							
Mental Status: Do they know:	Yes	No	Yes	No	Yes	No	Yes	No
1) Their name?								
2) Where they are?								
3) Time of day?								
4) Most recent activity?								
5) Speech is clear, correct?								
Sight:	Yes	No	Yes	No	Yes	No	Yes	No
1) Correctly counts fingers?								
2) Vision clear?								
Eye Movements:	Yes	No	Yes	No	Yes	No	Yes	No
1) Move all four directions?								
2) Nystagmus absent?								
Facial Movements?	Yes	No	Yes	No	Yes	No	Yes	No
1) Teeth clench OK?								
2) Able to wrinkle forehead?								
3) Tongue moves all directions?								
4) Smile symmetrical?								
Head/Shoulder Movements:	Yes	No	Yes	No	Yes	No	Yes	No
1) "Adams Apple" moves?								
2) Shoulder shrug normal, equal?								
3) Head movements normal, equal?								
Hearing:	Yes	No	Yes	No	Yes	No	Yes	No
1) Normal for that diver?								
2) Equal both ears?								
Sensations: Present, normal and Symmetrical across?	Yes	No	Yes	No	Yes	No	Yes	No
1) Face								
2) Chest								
3) Abdomen								
4) Arms (front)								
5) Hands								
6) Legs (front)								
7) Feet								
8) Back								
9) Arms (back)								
10) Buttocks								
11) Legs (back)								
Muscle Tone: Present, normal and symmetrical for:	Yes	No	Yes	No	Yes	No	Yes	No
1) Arms								
2) Hand grips								
3) Legs								
4) Feet								
Balance and Coordination:	Yes	No	Yes	No	Yes	No	Yes	No
1) Romberg OK?								
2) If Supine: Heel-shin slide OK?								
3) Alternating hand movements OK?								
Vital Signs:								
1) Blood pressure								
2) Pulse								
3) Respirations								

Annex B

Requisite Knowledge and Skill Performance Training Requirements

Diving is an equipment intensive and inherently risk filled occupational specialty. These appendices outline the qualification requirements specifically for individuals engaging in Public Safety Diving operations as a MABAS Division XII Diver.

Diving/Water Operations training and certifications shall be obtained through an Office of the State Fire Marshall Accredited Qualifying Agency as Referenced in Annex B.

Diver knowledge and skill performance requirements have been divided into two categories/levels:

- Operational Dive Technician and Advanced Dive Technician

Division Team Divers shall obtain the Operational Dive Technician level certifications within two years of membership and the Advanced Dive Technician level within five years. Time waivers may be granted for up to one year at each level based on the Department Team Leaders recommendation and Division Team Leaders approval.

Operational Dive Technician

Shall have core Knowledge and Skill performance requirement of:

- **Open Water Diving**
 - Approved Qualifying Agency certification
- **Dry Suit Diving:**
 - Familiarization and use of different types of Dry Suits:

- Shell style
 - Neoprene
 - Crushed Neoprene
 - Tri-Laminate
 - Vulcanized Rubber
 - Latex
 - Types of Dry Suit seals
 - Self donning/doffing
 - Compression resistant insulation
 - Dry Suit valves
 - Inflation/Deflation
 - Buoyancy Control and Proper Weighting
 - Harness Systems
 - Dry Suit Emergencies
 - Maintenance and Care
- **Full Face Mask Diving:**
 - Familiarization and use of different types of Full Face Masks:
 - Quick Connect/Disconnect
 - Use of Full Face Masks:
 - Contaminated Water
 - Winter Diving
 - Corrective Lenses
 - Donning/doffing surface and subsurface
 - Equalization
 - Alternate air source use
 - Types of Communication:
 - PTT
 - VOX
 - Hardwire
 - Wireless
 - Maintenance and Care
 - **Night / Low Visibility Diving**
 - Special Equipment
 - Lighting
 - Beacons
 - Communications
 - Hand Signals
 - Light Signals
 - Tactual Signals
 - Whistle use
 - Navigation
 - Disorientation
 - Buoyancy
 - Emergency procedures
 - **Search and Recovery Diving**

- Navigation
 - Compass
 - Distance estimation
 - Kicking techniques
- Limited visibility
 - Considerations
 - Hazards
- Search Techniques and Patterns
 - Types and when to use
- Salvage
 - Depth considerations
 - Lift devices
 - Lift bags
 - Knots and Rigging
 - Fill techniques

- **Public Safety Diving Operations (ERD 1)**

- Organization of Public Safety Dive/Water Rescue Teams
- Recreational diving vs. Emergency Response Diving
- Organization of Teams
 - Structure
 - Primary Diver
 - Primary Tender
 - Back-up Diver
 - Back-up Tender
 - Safety (90%) Diver
 - Safety Tender
 - Incident Command
 - Attitudes
 - Professionalism
 - Responsible use of assets
 - Team cohesion
 - Physical fitness
 - Operations
 - NFPA guidelines, OSHA regulations
 - SOG's
 - Record keeping
- Training
 - Safety
 - Ability
 - Individual & Team
 - Interagency
 - Keeping team members motivated
 - Frequency
- Public Safety Diving accidents
 - Avoid through education & training
- Equipment

- Recreational vs. Emergency Response Diving
 - Specialized equipment
- Small Boat Diving Operations
 - Types
 - Uses in Public Safety Diving
- Record keeping
 - Service records
 - Lines
 - Team logs
 - Diver logs
 - Training records
 - Court documentation
- Problem solving
 - Diver problems
 - Stress
 - Panic
 - Fatigue
 - Psychological
 - Focus
 - Air Loss
- Causes
 - Solutions
 - Entanglement
 - Common points of entanglement
 - Tether entanglement
 - Equipment problems
- Tender skills
 - Responsibilities
 - Line signals
 - Other signals
- Search patterns
- De-con procedures
- Evidence recovery
- Responding to calls
 - Scene evaluation
 - Rescue
 - Risk vs. Benefit
 - Recovery
 - Timeline
 - Resuscitation/Cold water near drowning
 - Rescue to recovery mode
- Witness interviews
- Crime scene recognition
 - Documentation
 - Body recovery
 - bagging procedures
 - Victim dignity
- Environmental/Hazmat conditions

- Planning & equipment issues
- De-con issues
- Water sampling
- Post incident debriefing
- Team debriefing and critique

Advanced Dive Technician

Shall have core Knowledge and Skill performance requirement of:

- **Advanced Open Water Diving**
 - Approved Qualifying Agency certification
- **Ice Diving**
 - Physiological effects of cold water diving
 - Emergency aspects of cold water diving
 - Special First Aid for cold exposure
 - Special equipment for ice diving
 - Harnesses
 - Lines
 - Dry suit
 - Hole cutting equipment and markers
 - Surface support Procedures
 - Duties and responsibilities
 - Hole cutting techniques
 - Lines and securing
 - Tending
 - Ice spokes
 - Lost diver procedures
 - Safety diver requirements and procedures
 - Special equipment for safety diver
 - Must be search & recovery trained
 - Broken line procedures
 - Underwater navigation
 - Diving lights
- **Deep Diving (Depth greater than 60')**
 - Diving Tables and Computer use
 - No-decompression limits
 - Use of decompression schedules
 - Safety stops
 - Problem solving
 - Equipment
 - Specialty equipment for deep diving
 - Tanks (sizes)
 - Regulators
 - BCD

- Reels
- Redundant air supply
- Physics and Physiology for Deep Diving
 - Special considerations for pressures greater than 3 atmospheres
 - Air consumption
 - CO₂ factors
 - Nitrogen Narcosis
 - O₂ toxicity
 - Decompression sickness
 - Descending to depth
 - Ascending from depth
- Emergency procedures
 - Techniques for safety tanks
 - Recompression
 - O₂ treatment
 - Shock

- **Penetration Diving (Wreck/Vehicle)**

- Surface support
- Communications
- Safety procedures
- Varied visibility
- Silt-out
 - Psychological considerations
- Pre-dive marking
- Pre-dive planning
- Directional determination
- Disorientation
 - Lost
 - Light failure
 - Emergency procedures
- Specialized equipment
 - Lighting
 - Size
 - Burn time
 - Usage
- Disentanglement
- Cutting devices
- Lifelines
 - Tie-offs
 - Directional markers
 - Line handling
- Safe penetration
- Hazardous penetration
 - Must AVOID
 - Blockages
 - Entrance restrictions
- Mapping scene/area

- **Rescue Diving**

- Prevention and psychological factors
 - Panic syndrome in divers
 - Physical conditioning
 - Equipment
 - Surface drowning syndrome
- Diver assists
 - Breathing difficulties
 - Fatigue
 - Cramping
 - Early panic symptoms
- Rescue of distressed divers
- Diving Lifesaving
 - Surface and underwater diver rescues
 - Types of transports
 - In-water artificial respiration
 - Boat and shore exit techniques
- Hyperbaric injuries and management
- Accident management
 - Access
 - Transport
 - Reporting

- **Advanced Public Safety Diving (ERD 2)**

- Victim death
- Accidental vs. Intentional
- Near drowning misconceptions
- Immersion reflex
- Secondary drowning
- Chances of survival
- Mechanics of drowning
- Dry Drowning
- Possibility of resuscitation
- Infants vs. Adults
 - Wet Drowning
- Chemistry changes
- Final moments
 - Crime scene
- Identify
- Preserve
 - Evidence
 - Types
 - Physiological changes
- Rigor Mortis
- Livor Mortis
 - Removal of crime scene evidence

- Vehicle removal/Heavy lifts
- Evidence recovery vs. salvage recovery
- OSHA
 - Techniques
- Hazards
 - Body recovery
 - Encapsulation
 - Environmental issues
- Medical concerns
- Sources
 - Dangers to Diver, scene, Team members, Family
 - Post dive observations
 - De-con procedures

3.1.6 Contaminated Water

Contaminated water is defined as water, which contains any chemical, biological, or radioactive pollutants, which pose a chronic or acute health, risk to exposed personnel. Some degree of contamination and/or pollution is evident in practically every body of water. The contamination may be naturally occurring or come from a variety of sources. The biggest concern is from relatively enclosed bodies of water, such as lakes, rivers, or harbors which are in close proximity to large populations where contamination can accumulate and /or concentrate.

Because of the wide variability in contaminants, potential exposure levels and other variables, only general guidance can be provided.

All divers that may be diving in contaminated / polluted waters shall refer to the minimum required equipment list that takes effect on 1-1-2009.

Appendix C

OSFM Accredited Qualifying Agencies

All listed Agencies meet the OSFM benchmark of Nationally Published:

- Public Safety Water Rescue Training Standards
- Public Safety Water Rescue Training Curriculum
- >80% NFPA 1670/1006 Compliant

Dive/Water Operations Qualifying Agencies				
Dive Technician	Ice Dive Technician	Surface Ice Rescue Technician	Swift Water Rescue Technician	Watercraft Technician
Scuba Diving International 18 Elm St. Topsham, ME 04086 1-888-778-9073 Open Water Diver Advanced Open Water Diver Core Skill Specialties	Scuba Diving International 18 Elm St. Topsham, ME 04086 1-888-778-9073 Ice Diving	Emergency Response Diving International 18 Elm St. Topsham, ME 04086 1-888-778-9073 Ice Surface Rescue	Dive Rescue International 210 North Link Lane Fort Collins, CO. 80524 1-800-248-DIVE Swiftwater 1 & 2	Dive Rescue International 210 North Link Lane Fort Collins, CO. 80524 1-800-248-DIVE Watercraft Technician
Emergency Response Diving International 18 Elm St. Topsham, ME 04086 1-888-778-9073 ERDI 1 ERDI 2	Emergency Response Diving International 18 Elm St. Topsham, ME 04086 1-888-778-9073 Ice Diving Operations	Dive Rescue International 210 North Link Lane Fort Collins, CO. 80524 1-800-248-DIVE Ice Rescue	Rescue 3 PO Box 1050 Wilton, CA. 95693 1-800-457-3728 Swiftwater 1 & 2	South United Fire Districts Watercraft Technician
Dive Rescue International 210 North Link Lane Fort Collins, CO. 80524 1-800-248-DIVE DRI 1 DRI 2	Dive Rescue International 210 North Link Lane Fort Collins, CO. 80524 1-800-248-DIVE Public Safety Ice Diving Operations	Lifeguard Systems PO Box 594 Shokane, NY 12481 1-845-657-5544 Surface Ice Rescue Technician 1	Lifeguard Systems PO Box 594 Shokane, NY 12481 1-845-657-5544 Swiftwater 1, 2 & 3	Romeoville Fire Academy Watercraft Technician
Lifeguard Systems	Lifeguard Systems	Atlas Outfitters	Special Rescue Services	

PO Box 594 Shokane, NY 12481 1-845-657-5544 Rapid Deployment Search and Rescue Recovery Diver	PO Box 594 Shokane, NY 12481 1-845-657-5544 Ice Diving SAR 1	PO Box 905 Pembine, WI. 54156 1-800-776-7199 Practical Ice Rescue	PO Box 4686 Sonoma, CA. 95370 1-209-743-9451 Swiftwater Tech	
Public Safety Diving Association PO Box 8427 Jacksonville, FL. 32239 1-904-743-5425 PSDA Level 1	American Rescue (PSDA) 2716 Orchard Street South Fircrest, WA. 98466 1-253-820-7858 Ice Diving	Lifesaving Resources PO Box 905 Harrisville, NH. 03450 1-603-563-8330 Ice Rescue Technician Course		
		American Rescue (PSDA) 2716 Orchard Street South Fircrest, WA. 98466 1-253-820-7858 Practical Ice Rescue		

MABAS DIVISION 12 Dive/Swiftwater Rescue Team		
	Standard Operating Guidelines and Procedures for Training, Rescue, and Recovery Operations	

Team Leader Approval Signatures

Department	Name	Signature
Chief Liaison	Chief Joe Leone	
Addison	LT Dave Dinelli	
Bloomingtondale	Giovani Lopez	
Hanover Park		
Itasca	LT Roy Dahl	

Roselle	S/C Marcus Abule	
Oak Brook	Rob Ebsen	
Oakbrook Terrace	Sean Russell	
West Chicago	David Link	
Winfield	Ed Troutman	
Villa Park	Jamie Bickley	