

**Water Rescue Shore Based Guidelines**

<b>#</b>	<b>Title of Information / Guideline</b>	<b>Page</b>
1	GUIDELINES FOR IMPLEMENTING SITE CONTROL AND SCENE MANAGEMENT	2
2	GUIDELINES TO INSURE PERSONNEL SAFETY AT WATER OPERATIONS	3
3	GUIDELINES FOR SIZE-UP OF EXISTING AND POTENTIAL CONDITIONS	4
4	GUIDELINES TO SAFELY AND EFFECTIVELY CONDUCT SHORE-BASED RESCUE OPERATIONS	5
5	GUIDELINES TO DETERMINE THE METHOD OF VICTIM ENTRAPMENT	6
6	GUIDELINES TO EVALUATE PROGRESS OF THE PLANNED RESPONSE TO ENSURE THE OBJECTIVES ARE BEING MET SAFELY, EFFECTIVELY AND EFFICIENTLY	7
7	GUIDELINES FOR IMPLEMENTING THE ASSESSMENT PHASE	8
8	GUIDELINES FOR THE IDENTIFICATION OF THE RESOURCES NECESSARY TO CONDUCT SAFE AND EFFECTIVE WATER OPERATIONS	9
9	GUIDELINES FOR IMPLEMENTING THE EMERGENCY RESPONSE SYSTEM FOR WATER RESCUE	10
10	GUIDELINES TO DETERMINE RESCUE VERSUS BODY RECOVERY	11
11	GUIDELINES USING THROW BAGS	12
12	GUIDELINES TO IMPLEMENT A PLANNED RESPONSE CONSISTENT WITH THE ORGANIZATION'S CAPABILITIES	13
13	PLAN TO MEET OPERATIONAL OBJECTIVES	14

## References:

"Swiftwater Rescue Technician 1, Student Manual, 2<sup>nd</sup> Edition", Rescue 3 International, Elk Grove, CA 1997

"Swiftwater Rescue Technician Advanced, Student Manual", Rescue 3 International, Elk Grove, CA, 2000

**Information Sheet #1**

TOPIC: GUIDELINES FOR IMPLEMENTING SITE CONTROL AND SCENE MANAGEMENT

INTRODUCTION: General SOP for obtaining and keeping scene control.

---

**Previous to Arrival at Site – Enroute Hazard Assessment for**

- Early Establishment of ICS System – Staff as Needed (Safety Officer)
- Conduct Hazard Assessment for Responders, Bystanders and Rescue Groups
  - Predict Upcoming Issues Associated With Site
    - Environmental – Water Level, Currents, Weather, Night
    - Social – Other Rescue Groups, Dealing With Bystanders
    - Political – Media, Jurisdiction, Sensitivity of Location / Event
- Early Site Control– Lock Gates, Reestablish Roadblocks During Transit
- Early Request for Security on Site
- Send Reconnaissance Group Ahead for Early Site Layout
- Early Use of Staging Area Nearby for Incoming Resources
- Identify Potential Safe Areas for Bystanders

**Arrival at Site – Notify Dispatch / Managing Agency of Arrival, Initial Conditions**

- Park / Stage in Safe Area – Out of Traffic Flow, Not Blocking Traffic Flow
- Establish Command Post / Check-in to Existing Command Post
  - Clear Responsibility for Overall Site Control - Responders
    - Traffic Flow, Accountability, Perimeter, Access Corridors
- Reevaluate Hazard Assessment and Upcoming Issues As Needed
  - Predict / Prioritize Issues at Site – Responder / Bystander Safety First
- Control Access to Area – Physical Barrier, Tape, Traffic Triangles, Person
- Notify Bystanders of Need to Stay Out of / Remove From Area – Verify

**Continuing Site Control and Scene Management**

- Public Information Officer Assigned As Needed
- Incident Map Updated With Control Zones, Hazards As Able / Needed
- Maintain Access Control – Barriers, Accountability System, Access Control
- Report Team Movement Out of Assigned / Response Area as Per ICS System
- Notify Security (Person in Charge of Site Control) of Issues
- Regular Re-evaluation of Hazard
- Use Staging Areas for Personnel / Teams Not Actively In Use
  - Command Post Continually Staffed
- Lock Vehicles / Trailers When Not Attended

Cordon Off Areas for Rehab / Staging At Incident Site as Needed

**Information Sheet #2**

TOPIC: GUIDELINES TO INSURE PERSONNEL SAFETY AT WATER OPERATIONS

INTRODUCTION: Safety guidelines incorporated into standard SOP (Activation, IAP)

---

Water Captain Directs the Required PPE and Operations  
Safety Officer Provides Officer Approves PPE, Operations, and Risk Level

**Assuring Wearing of Proper PPE**

Equipment Check by Squad Lead Before Leaving Staging Area  
Safety Check of PPE Required Prior to Use in Operations

**Procedural Checklists** – Stored in Shallow Water Trailer and Web Site by ICS System  
SOPs Serve as Baselines For Establishing Operations (Train As Deploy)  
Procedural Checklists Stored in Accessible Location

**Site Security (Keep Bystanders Back)**

Vehicles Locked or Attended  
Hazard Check Immediately On Arrival (Deployment SOP)

**Reviewing Communications Guidelines** – (Rescuer to Tender, Tender to Shore, Rescuer to Rescuer)

Review Before Operation – Radio Channels, Commands, ...  
Use Standard Communication Gestures, Commands and Signals

**Reviewing Emergency Guidelines**

Review Before Operation (Regroup Locations, Emergency Signals, Channels,...)  
What To Do in Failed Operation – Abort Strategy

**Proper Attire for Potential Weather**

Weather Forecast Recorded on ICS 202, Briefed to Team Before Operations  
Sizing List for Clothing Sizes for Personnel on File (Request Equip as Needed)

**Reviewing Guideline for Equipment Handling**

Use of Equipment Reviewed Before Operations as Needed  
Standard Operation of Equipment Documented, Tested and Trained To

**Assuring Proper Rest and Attitude for the Operation**

Regular Scheduled Rest Breaks and Check In  
Mid Point Operations Check and End of Shift Debriefing

**Information Sheet #3**

TOPIC: GUIDELINES FOR SIZE-UP OF EXISTING AND POTENTIAL CONDITIONS

INTRODUCTION: Size-up guidelines incorporated into SOPs (Activation, IAP)

---

Water Captain Responsible for Size-up, Reevaluate As Needed  
Safety Officer Provides Officer Approves

**Scope, Magnitude and Nature of Incident**

Determine Type of Event, Location, Affected Area, Degree Affected  
Determine Immediate Response Needs  
Project Effects on Life, Environment, Property

**Location and Number of Victims**

Signs – Capacity of watercraft, car, size of aircraft, ...  
Reports – Dispatch, Witnesses, ...  
Location – See Search Guidelines

**Risk / Benefit Analysis**

Operational Priority Based on Protocol (Life, Environment, Property)  
Benefit Estimation on Ability to Accomplish Operational Priority  
Risk Estimation Based on Best Operational Capability to Achieve Benefit  
Always Ask “What Happens If Nothing Done?” – Will Situation Stabilize Itself

**Separation, Isolation, Security, and Interviewing of Witnesses** – Search Guidelines

**Hazards Such As Disrupted or Exposed Utilities, Standing or Flowing Water, Mechanical, Hazmat and Explosives** – See Tactical SOP and Risk Assessment

**Access to Scene** – See Incident Action Plan SOP

**Environmental Factors** – See Standard Tactical Operating SOP

**Resource Assessment, Internal and External**

Internal – See Team Capabilities and Limitations  
External – See Response Resources

**Rescue Verses Recovery** – Determine Urgency of Response

Rescue – High to Low Chance of Victim Survival  
Recovery – Marginal Chance of Victim Survival

**Information Sheet #4**

TOPIC: GUIDELINES TO SAFELY AND EFFECTIVELY CONDUCT SHORE-BASED RESCUE OPERATIONS

INTRODUCTION: Rescue with minimal hazard exposure to the rescuer.

---

**General Guidelines**

- Hazard Assessment of Failure of Effort – Determine Mitigation Efforts Needed
- Determine Victim's Capability to Help With Rescue Effort
  - Able to Hear and Understand Actions to Be Taken
  - Physically Able to Assist in Rescue
  - Mental State of Victim
- Determine Urgency of Rescue – Cold Water, Rising Waters, ...
- Determine Availability of Resources – What Are the Available Options
- Select Operation Course of Action

**Talk Victim Into Self Rescue** – Victim Can Understand and Can Carry Out Instructions

- Victim Can Safely Rescue Themselves – Safe Passage Out of Water
- Use Bullhorn for Amplify Voice As Needed
- Do Not Use Jargon to Give Instructions
- Maintain Controlled, Clear, and Decisive Presence

**Reaching to Victim** – Victim Can Hold or Be Held by Object Extended

- Select / Find Object Which Can Perform Rescue
- If Victim Can Help in Rescue
  - Get Victim's Attention – Position Object in Front of Victim
  - Instruct Victim to Grab and Hold Onto Object
    - In Still Water – Pull Victim Directly Into Shore
    - In Moving Water - Swing Person Into Bank (Eddy Preferred Point)
- If Victim Cannot Help in Rescue
  - Use Hooked Object to Grasp Victim (i.e. Boat Hook)
  - If Not Body Recovery Be Careful of Additional Injuries to Victim
- Help Remove Victim From Water Using Removal of Victim from Water Guideline

**Throwing Something to Victim** – Victim Can Grab and Hold Thrown Object

- Select / Find Object Which Can Perform Rescue (Floating Object Preferred)
- Get Victim's Attention – Throw Object in Front of Victim
- Instruct Victim to Grab and Hold Onto Object
  - In Still Water – Pull Victim Directly Into Shore
  - In Moving Water – Swing Person Into Bank (Eddy Preferred Point)
- Help Remove Victim From Water Using Removal of Victim from Water Guideline

**Information Sheet #5**

TOPIC: GUIDELINES TO DETERMINE THE METHOD OF VICTIM  
ENTRAPMENT

INTRODUCTION: How to safely find how the victim is trapped in the water.

---

**General Guidelines**

Conduct Hazard Assessment (If It Trapped the Victim It Can Trap the Rescuer)  
Determine What Happens to Victim When They Are Freed – Before Operations  
Direction of Current for Pinning Body Part to Trap Victim (Foot Entrapment, ...)  
Probe With Paddle, Boat Hook, ... to Feel for How Body of Victim Trapped  
Use Mask to See How Victim Is Trapped – Do Not Submerge Head Under Water  
For Water Control Areas – Check If Can Lower or Shut Off Water Flow  
Body Recovery - Can Use Divers to Recover Body Or Do Nothing (Unsafe Ops)

**Live Victim** - Determine Time Criticalness of Rescue – How Long Can Victim Survive  
Support Victim's Ability to Keep Head Out of Water, Do Not Submerge Head  
Conscious – Ask Victim How They Are Trapped

**Undercut** – Person Pinned Under Section of Bank  
Probe Under Bank With Pole to Determine Entrapment Method  
Body Recovery – Attempt to Free Body by Submerging Body  
Dig / Cut Out Part of Bank to Access Victim

**Underwater Hazard** – Part of Victim's Body Trapped By Current or Wedged in Area  
Attempt Extraction With Guidelines to Free Foot Entrapment  
Use Swiftwater Guidelines to Position Boat Over Victim  
Secure Line to Victim As Able To - Pull Line and Push Parts With Probe

**Strainers** – Victim Trapped By Current Flowing Through Strainer  
Attempt Extrication With Guidelines to Free Foot Entrapment If Applicable  
Rescuer May Walk Out On Top of Strainer if Safe  
Use Swiftwater Guidelines to Position Boat Beside Victim  
Approach From Below Strainer if Able to (Below the Hazard)

**Hydraulics** – Victim Caught in Recirculating Water (Hole, Low Head Dam, ...)  
Reach or Throw Operations for Low Head Dam Only  
Attempt Extrication With Guidelines to Free Foot Entrapment If Applicable  
Use Swiftwater Guidelines to Position Boat Downstream of Hole  
Reach With Boathook – Pull Out of Hydraulic (Side or Across Boil Line)  
Body Recovery (Unsafe Conditions) – Body Will Eventually Leave If Do Nothing

### Information Sheet #6

TOPIC: GUIDELINES TO EVALUATE PROGRESS OF THE PLANNED RESPONSE TO ENSURE THE OBJECTIVES ARE BEING MET SAFELY, EFFECTIVELY AND EFFICIENTLY

INTRODUCTION: Background for progress checks in Incident Action Plan SOP.

---

**Initial Briefing** – Contained in Guidelines for Team Briefing

Team Briefing Taken Directly From Incident Action Plan (Objectives)  
Plan for Accomplishing Objectives Briefed to Team Before Operations

**Regular Update on Progress / Status of Team**

Update to Unit Log Every 30 Min – Incident Action Plan SOP  
Check in To Command 1 hr – Incident Action Plan SOP  
Update During 10 min Break – Compare to Plan

**Mid Point Evaluation at Halfway Point of Work Shift** – Incident Action Plan SOP

Review of Progress – Compare to Objectives  
Review of Tactics – Effectiveness  
Review of Hazard Assessment  
    Dealing With Hazards  
    Forecasting Any Addition Hazards or Changes In Conditions

**End of Work Shift / Assignment**

Team Debriefing – Review of Activities and Accomplishments

**Information Sheet #7**

TOPIC: GUIDELINES FOR IMPLEMENTING THE ASSESSMENT PHASE

INTRODUCTION: Rescuer gathers information on pending water operation.

---

**Assessment Phase Implemented When**

Team Activated – As Per Guidelines for Implementing the Emergency Response System for Water Rescue

Team on Standby Status Conduct Assessment as Able Based

Expected Operations – Water Related Local Conditions (e.g. Local Flooding)

First Responder Arrives on Scene to Water Incident (Prior to Tech Level Arrival)

**Conduct Size-up** – As Per Guidelines for Size-up of Existing and Potential Conditions  
Report or Record Results of Size-up as Needed (e.g. Call Dispatch)

**Evaluation of Subject's Ability to Assist in Own Rescue**

Assess Subject's Current Condition

Physical – Ability to Physically Conduct Tasks

Example – Victim's Hands May Be Too Cold to Grip A Line Thrown

Mental – Ability to Follow Directions

Example – A Child May Nod That They Understand Regardless

Emotional – Ability to Focus Long Enough to Perform Task

Example – Person May Not Willingly Leave a "Safe" Location

Assess Subject's Expected Change in Condition

Changes Due To Water Temperature, Ability to Breathe, Medical Injuries...

**Develop Urgency Due to Size-up and Subject Evaluation**

Some Techniques May Work With a Subject Able to Cooperate

Subject May Not Be Able to Cooperate for Long

Report or Record Results of Size-up as Needed

Call Dispatch With Update

Handoff Results to Responding Group

### Information Sheet #8

TOPIC: GUIDELINES FOR THE IDENTIFICATION OF THE RESOURCES NECESSARY TO CONDUCT SAFE AND EFFECTIVE WATER OPERATIONS

INTRODUCTION: Information on Conducting Safe Water Rescue Operations.

---

#### **Current Guidelines**

- EOC Active – Call EOC With Request
- Emergency Situation – Call NASA Dispatch With Request
- Non-emergency – Call DART Command With Request

#### **Identified Supplier Contact Data:**

- Incident Command Section: Contact Info
- Logistics Section, Service Branch: Contact Info
- Logistics Section, Support Branch: Contact Info
- Planning Section, Technical Specialist: Contact Info

#### **Unidentified Supplier Contact Data:**

- Yellow Pages, Internet

**Mutual Aid Agreements** – No Mutual Aid Agreements in Place

#### **Agreements With the Private Sector, Including the Following:**

- Organizations Specializing in the Specific Skills and / or Equipment Required to Resolve the Incident – No Agreements in Place
- Special Equipment Supply Companies – No Agreements in Place
- Related Technical Specialists – No Agreements in Place
- Communications – No Agreements in Place
- Food Service – No Agreements in Place
- Sanitation – No Agreements in Place

**Memorandums of Agreement (MOA) With Other Public, State, or Federal Agencies**  
**No MOAs in Place**

**Information Sheet #9**

TOPIC: GUIDELINES FOR IMPLEMENTING THE EMERGENCY RESPONSE SYSTEM FOR WATER RESCUE

INTRODUCTION: General SOP to for activation of DART water rescue.

---

**NASA Dispatch Contacted** (Center Approval for Team Dispatch Required)

Phone Call	911 on Base
Phone Call	(650) 604-5555 Off Base
Radio Call	Channel 911A

Dispatch Activates Team (911 Page Sent out – Text Message)

**EOC Contacted** (EOC Active, Water Team on Standby)

Contact by Approved Method, EOC Contact to Water Captain

**Self Activation** (Dispatch Notified of Self Activation)

During Official Training / Event Marine Distress Signal Observed

**Information Sheet #10**

TOPIC: GUIDELINES TO DETERMINE RESCUE VERSUS BODY RECOVERY

INTRODUCTION: General SOP to determine operational mode and urgency.

---

For Mixed Reports of Victim Condition (Live / Death), Assume Alive Until Confirm Dead

**Rescue: Confirmed Alive** – (Document Basis for Determination if Needed)

Victim Has Pulse

Victim Observed Moving Under Own Power

Victim Hear Communicating

Certified Live Find K-9 Alerts on Victim AND 2<sup>nd</sup> Certified Live Find K-9 Confirms

Victim Reported Alive (By Creditable Party)

Rescuer May Question Report of Creditable Party (Document Basis For)

If Victim is Reported Deceased AND Confirmed Based On Report

**Body Recovery: Confirmed Dead** – (Document Basis for Determination)

Death Pronounced by Certified Authority

Victim Stays In Unsurvivable Situation (e.g. 4 hrs Inside Submerged Car)

Victim Stays in Unsurvivable Position (e.g. Floating Face Down 5 Minutes)

Condition of Victim Not Possible for Life (e.g. Crushed Skull)

Cadaver Certified K-9 Alerts on Victim AND 2<sup>nd</sup> Cadaver Certified K-9 Confirms

Victim Reported Deceased by Professional, Knowledgeable Authority

Rescuer May Question Basis of Knowledgeable Authority

Rescuer May Question Professionalism of Authority

**Possible Rescue** – Attempt to Confirm As Live or Dead, Treat As Rescue

Report of Creditable Party May Indicate Body Recovery

Victim in Survivable Position and Location (e.g. Floating Face Up, Unconscious)

Victim in Unsurvivable Position or Situation for Unknown Amount of Time

Determine Min Length of Time Victim Position or Situation Started

Determine Max Length of Time Victim May Survive

Body Recovery After Survivable Time Exceeded (Document Basis)

**Information Sheet #11**

TOPIC: GUIDELINES USING THROW BAGS

INTRODUCTION: Guide for correct use of throw bags.

---

**Select Area for Use** (Employ Upstream Spotter If Able)

Safety of Rescuer – Good Footing, Hazards If Rescuer Pulled Into Water

Effectiveness of Area – Quality of Location for Victim

Visibility and Noise Level of Area – Can Communicate to Victim

Range – Distance Rope Thrown (70' Rope in Most Throw Bags)

Hazards Up and Downstream – Useful Placement of Rescuer

Victim Take-out Area Available and Victim Will Be Able to Catch Rope

Practice Rope Deployment for Range and Familiarity With Area As Able

**Body Position** (Bag Open With Free End Of Rope Out ~ 3 ft)

Stand at ~ 45 Deg Angle to River Ready (Throwing Arm Away From River)

Hold Throw Bag in Throwing Hand, Hold Free End of Rope in Other Hand

Watch Upstream for Victim

**Throwing Technique** – Bagged Rope

Throw Bag With Underarm to Sidearm Technique Toward Target

Maintain Hold on End of Rope

**Rope Retrieval Technique**

Step on Free End of Rope With Opposite Foot From Throwing Arm

Coil Half Of Rope in Non-Throwing Hand

Insert Small Finger(s) At End of Rope Coils

Coil Rest of Rope into Non-Throwing Hand (Bag At End of Rope)

**Throwing Technique – Coiled Rope** (Repackage In Bag As Time Allows)

Grasp Half of Rope Coil in Throwing Hand – Small Finger(s) Split Coil

Deploy Coil in Throwing Hand Toward Target (With Bag At End)

Slightly Toss Remaining Coil in Other Hand Toward Target

**Target Selection**

Select Location for Best Victim Retrieval (Victim Can See Rope, Peak of Wave)

Communicate With Victim – Victim Knows Rope Is Coming

Lead Victim In Moving Water So Rope Falls Slightly in Front of Victim

**Victim Retrieval**

Brace Self As Victim Grasps Rope (Do Not Tie Rope Around Body)

Guide Victim Into Safe Take-out Location (Medical Treatment As Needed)

If Rope Wraps Around Victim Do Not Let Go Of Rope – Guide to Take-Out Spot

### Information Sheet #12

TOPIC: GUIDELINES TO IMPLEMENT A PLANNED RESPONSE CONSISTENT WITH THE ORGANIZATION'S CAPABILITIES

INTRODUCTION: Standard response method.

---

**Prep Team for Deployment** – Use Guideline from Water Rescue Incident Response  
Located in Incident Command Section, Activation SOP.doc

**Complete Planning Material** – Use Guideline Response Planning Guideline  
Located in Incident Command Section, Activation SOP.doc

Consult Capabilities and Limitations of Team  
Refer to Team Capabilities and Limitations.xls  
Located at Incident Command Section, Liaison Officer

Consult Available Resources for Personnel and Equipment  
Personnel – Refer to Contact Info.doc  
Equipment – Response Resources.doc  
Located in Planning Section, Resources Unit

**Respond** – Use Standard Response Guideline Section of Activation SOP.doc  
Located in Incident Command Section

**Long Term Response** – Incident Action Plan SOP.doc  
Located in Planning Section

**Tactical Considerations** – Use Standard Tactical Operating Guidelines.doc  
Located in Operations Section

Night Operations	Shallow Water Operations
Moving Water Operations	Aircraft Response
Medical Treatment	

### Information Sheet #12

TOPIC: PLAN TO MEET OPERATIONAL OBJECTIVES

INTRODUCTION: Method for insure meeting response priorities.

---

Information Recorded on Standard Forms (Objectives Listed)

Use Response Planning Guideline  
Contained in Activation SOP.doc  
Located in Incident Command Section

Use Incident Action Plan Standard Operation Guidelines  
Contained in Incident Action Plan SOP.doc  
Located in Planning Section

Information Briefed from Forms (Objectives Given to Team)

Use Team Briefing Guidelines  
Contained in Team Briefing.doc  
Located in Planning Section, Situation Unit

Regular Check in for Team (Status Update on Meeting Objectives)

Use Incident Action Plan Standard Operation Guidelines  
Contained in Incident Action Plan SOP.doc  
Located in Planning Section

Debrief of Team After Assignment Completed (Check Of How Objectives Met)

Use Team Debriefing Guidelines  
Contained in Team Debriefing.doc  
Located in Planning Section, Demobilization Unit