

# Water Rescue

(NFPA 1006: Surface Water Rescue,  
Swiftwater Rescue, and Floodwater Rescue  
Awareness/Operations/Technician)

---

## Curriculum Training Standards Guide (2021)



California Department of Forestry and Fire Protection  
Office of the State Fire Marshal  
State Fire Training

# Water Rescue

## Curriculum Training Standards Guide (2021)

**Publication Date:** August 2024

This CTS guide utilizes the following NFPA standards to provide the qualifications for State Fire Training's Water Rescue (2021) curriculum:

- NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)

State Fire Training coordinated the development of this CTS guide. Before its publication, the Statewide Training and Education Advisory Committee (STEAC) and the State Board of Fire Services (SBFS) recommended this CTS guide for adoption by the Office of the State Fire Marshal (OSFM).

Cover photo courtesy of Sean Norman, Division Chief, CAL FIRE

Published by State Fire Training.

## Table of Contents

Acknowledgements.....	1
How to Read a CTS Guide .....	2
Surface Water Rescue .....	4
Section 1: Awareness.....	4
1-1: Sizing Up a Surface Water Incident .....	4
1-2: Recognizing Incident Hazards and Initiating Isolation Procedures .....	5
1-3: Recognizing the Need for Technical Rescue Resources .....	7
1-4: Supporting an Operations- or Technician-level Incident.....	8
Section 2: Operations.....	9
2-1: Developing a Site Survey for an Existing Water Hazard .....	9
2-2: Selecting Water Rescue PPE .....	11
2-3: Defining Search Parameters .....	13
2-4: Developing an Action Plan for a Shore-based Rescue.....	15
2-5: Deploying a Water Rescue Reach Device .....	17
2-6: Deploying a Water Rescue Rope .....	19
2-7: Developing and Implementing an Action Plan to Use Watercraft .....	21
2-8: Defining Procedures to Support Helicopter Water Operations .....	22
2-9: Implementing Procedures for Performing Watercraft-based Rescue .....	24
2-10: Demonstrating Survival Swimming and Self-rescue Skills.....	25
2-11: Identifying Procedures for Operating Water Rescue Rope Systems.....	26
2-12: Supporting Water Rescue Operations .....	28
2-13: Terminating an Incident .....	29
Section 3: Technician .....	31
3-1: Swimming a Designated Water Course .....	31
3-2: Performing a Swimming Surface Water Rescue.....	33
3-3: Demonstrating Defensive Tactics in the Water Rescue Environment .....	35
3-4: Performing an Entry Surface Rescue from a Rescue Platform .....	36
3-5: Directing a Rescue Team During Operations.....	38
Swiftwater Rescue .....	39
Section 4: Awareness.....	39
4-1: Sizing Up a Swiftwater Rescue Incident .....	39
4-2: Recognizing Incident Hazards and Initiating Isolation Procedures .....	41
4-3: Recognizing the Need for Technical Rescue Resources .....	43
4-4: Supporting an Operations- or Technician-level Incident.....	44
Section 5: Operations.....	45
5-1: Constructing Rope Rescue Systems.....	45
5-2: Supporting Swiftwater Operations.....	47
5-3: Assessing Hazards to Rescuers and Victims .....	48
5-4: Performing a Non-water Entry Rescue.....	49
5-5: Terminating an Incident .....	51

## Table of Contents

---

Section 6: Technician .....	53
6-1: Performing an Entry Rescue .....	53
6-2: Negotiating a Designated Swiftwater Course.....	55
6-3: Performing an Entry Swiftwater Rescue from a Rescue Platform .....	57
Floodwater Rescue.....	58
Section 7: Awareness .....	58
7-1: Sizing Up a Floodwater Incident .....	58
7-2: Recognizing Incident Hazards and Initiating Isolation Procedures .....	60
7-3: Recognizing the Need for Technical Resources.....	62
7-4: Supporting an Operations- or Technician-level Incident.....	63
Section 8: Operations.....	64
8-1: Supporting Technician-level Floodwater Rescue Operations .....	64
8-2: Assessing Hazards to Rescuers and Victims .....	65
8-3: Performing a Non-entry Rescue .....	66
8-4: Implementing an Incident Action Plan .....	68
8-5: Implementing an Action Plan to Use Air Assets .....	69
8-6: Limiting Exposure to Potentially Contaminated Floodwater .....	70
8-7: Identifying High Probability Victim Locations .....	71
8-8: Managing Hazards Unique to the Terrain and Environment .....	72
8-9: Navigating Floodwater Covered Terrain.....	73
8-10: Terminating an Incident .....	74
8-11: Performing a Non-entry Floodwater Rescue from a Rescue Platform.....	76
Section 9: Technician .....	77
9-1: Performing an Entry Rescue .....	77
9-2: Developing an Incident Action Plan to Use Watercraft.....	79

## Acknowledgements

State Fire Training appreciates the hard work and accomplishments of those who built the solid foundation on which this program continues to grow.

State Fire Training gratefully acknowledges the following individuals and organizations for their diligent efforts and contributions that made the development and publication of this document possible.

### CAL FIRE

- Joe Tyler, Director
- Daniel Berlant, State Fire Marshal
- Chris Fowler, Chief of State Fire Training
- Mike Richwine, Chair, Statewide Training and Education Advisory Committee (STEAC); State Fire Marshal (Ret.), CAL FIRE

### Cadre – 2023 Curriculum Development

#### Leadership

- Joe Bunn, Cadre Lead, Fire Service Training Specialist III, (Retired) CAL FIRE
- Chris Fowler, Cadre Lead, Chief of State Fire Training
- Allison L. Shaw, Editor, Sacramento State

#### Members

- Tyrome Baker, Apparatus Operator, Los Angeles City Fire Department
- Aide Barbat, Battalion Chief, San Diego Fire-Rescue Department
- Greg Belk, Assistant Deputy Director: Training, Safety, and EMS, CAL FIRE
- Zachary Boyd, Fire Captain, Kern County Fire Department
- Patrick Costamagna, Assistant Chief of Operations, Sacramento Fire Department
- Sean Findlay, Fire Fighter Specialist/Ocean Lifeguard, Los Angeles County Fire Department
- Brook Mancinelli, Captain, San Francisco Fire Department
- Billy Milligan, Fire Fighter/USAR Training Manager, Riverside City Fire Department
- Sean Norman, Division Chief, CAL FIRE
- Ric Stell, Marine Safety Lieutenant, San Diego Fire-Rescue Department, Lifeguard Division
- Robert Stine, Fire Fighter/USAR Training Manager, San Bernardino County Fire

## How to Read a CTS Guide

### Overview

A curriculum training standard (CTS) guide lists the requisite knowledge, skills, and job performance requirements an individual must complete to become certified in a specific job function.

It also documents and justifies the OSFM-approved revisions to the curriculum's NFPA standard and identifies where each curriculum training standard is taught (course plan), tested (skill sheets), and validated (task book).

Individuals aspiring to meet State Fire Training's curriculum training standards must do so in accordance with the codes, standards, regulations, policies, and standard operating procedures applicable within their own agency or jurisdiction.

### Format

Each curriculum training standard is comprised of eight sections.

#### Section Heading

Training standards are grouped by section headings that describe a general category. For example, the Fire Fighter 1 CTS guide includes the following section headings: NFPA Requirements, Fire Department Communications, Fireground Operations, and Preparedness and Maintenance.

#### Training Standard Title

The training standard title provides a general description of the performance requirement contained within the individual standard.

#### Authority

The CTS guide references each individual standard with one or more paragraphs of the corresponding National Fire Protection Association (NFPA) Professional Qualifications. This ensures that each fire service function within California's certification system meets or exceeds NFPA standards.

When California requirements exceed the NFPA standard, the CTS guide cites the Office of the State Fire Marshal as the authority and prints the corresponding information shaded gray.

#### Job Performance Requirements

This segment includes a written statement that describes a specific job-related task, the items an individual needs to complete the task, and measurable or observable outcomes.

**Requisite Knowledge**

This segment lists the knowledge that an individual must acquire to accomplish the job performance requirement.

**Requisite Skills**

This segment lists the skills that an individual must acquire to accomplish the job performance requirement.

**Content Modification**

This table documents and justifies any revisions to the NFPA standard that the development or validation cadres make during the development of a CTS guide.

**Cross Reference**

This table documents where each training standard is taught (course plan), tested (skill sheets), and validated (task book).

# Surface Water Rescue

## Section 1: Awareness

### 1-1: Sizing Up a Surface Water Incident

#### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 17.1.1

#### Job Performance Requirement

Size up a surface water incident, given an incident, so that the scope of the rescue is determined, the number of victims is identified, the last reported location of all the victims is established, witnesses and reporting parties are identified and interviewed, and search parameters are identified.

#### Requisite Knowledge

1. Describe information gathering techniques and how that information is used in the size-up process

#### Requisite Skills

1. Interview people
2. Gather information
3. Relay information
4. Manage witnesses
5. Use information sources

#### Content Modification

Block	Modification	Justification

#### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-6</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-6</li></ul>	Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Skill 3</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 3</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 7, 24</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 7, 28</li></ul>



## 1-2: Recognizing Incident Hazards and Initiating Isolation Procedures

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 17.1.2

### Job Performance Requirement

Recognize incident hazards and initiate isolation procedures, given scene control barriers, personal protective equipment (PPE), requisite equipment, and available specialized resources, so that all hazards are identified; resource application fits the operational requirements; hazard isolation is considered; risks to rescuers, bystanders, and victims are minimized; and rescue time constraints are taken into account.

### Requisite Knowledge

1. Describe resource capabilities and limitations
2. Describe types and nature of incident hazards
3. Describe equipment types and their use
4. Describe isolation terminology, methods, equipment, and implementation
5. Describe operational requirement concerns
6. Describe common types of rescuer and victim risks
7. Describe risk/benefit analysis methods and practices
8. Describe hazard recognition, isolation methods, and terminology
9. Describe methods for controlling access to the scene
10. Describe types of technical references

### Requisite Skills

1. Identify resource capabilities and limitations
2. Identify incident hazards
3. Assess potential hazards to rescuers and bystanders
4. Place scene control barriers
5. Operate control and mitigation equipment

### Content Modification

Block	Modification	Justification

**Cross Reference**

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-3</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-3</li></ul>	Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Skill 1</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 1</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 4, 24</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 4, 28</li></ul>

### 1-3: Recognizing the Need for Technical Rescue Resources

#### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 17.1.3

#### Job Performance Requirement

Recognize the need for technical rescue resources at an operations- or technician-level incident, given AHJ guidelines, so that the need for additional resources is identified, the response system is initiated, the scene is secured and rendered safe until additional resources arrive, and awareness-level personnel are incorporated into the operational plan.

#### Requisite Knowledge

1. Describe operational protocols
2. Describe specific planning forms
3. Describe types of incidents common to the AHJ
4. Describe hazards
5. Describe incident support operations and resources
6. Describe safety measures

#### Requisite Skills

1. Apply operational protocols
2. Select specific planning forms based on the types of incidents
3. Identify and evaluate various types of hazards within the AHJ
4. Request support and resources
5. Determine the required safety measures

#### Content Modification

Block	Modification	Justification

#### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-1</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-1</li></ul>	N/A	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 2</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 2</li></ul>

## 1-4: Supporting an Operations- or Technician-level Incident

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 17.1.4

### Job Performance Requirement

Support an operations- or technician-level incident, given an incident, an assignment, an incident action plan, and resources from the tool kit, so that the assignment is carried out, progress is reported to command, environmental concerns are managed, personnel rehabilitation is facilitated, and the incident action plan is supported.

### Requisite Knowledge

1. Describe AHJ operational protocols
2. Describe hazard recognition
3. Describe incident management
4. Describe PPE selection
5. Describe resource selection and use
6. Describe scene support requirements

### Requisite Skills

1. Apply operational protocols
2. Function within an incident management system
3. Follow and implement an incident action plan
4. Report the task progress status to a supervisor or incident command

### Content Modification

Block	Modification	Justification

### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-14</li></ul>	Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Skill 12</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 15, 24</li></ul>
Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-14</li></ul>	Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 11</li></ul>	Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 15, 28</li></ul>

## Section 2: Operations

### 2-1: Developing a Site Survey for an Existing Water Hazard

#### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 17.2.1

#### Job Performance Requirement

Develop a site survey for an existing water hazard, given historical data, specific PPE for conducting site inspections, flood insurance rate maps, tide tables, and meteorological projections, so that life safety hazards are anticipated, risk/benefit analysis is included, site inspections are completed, water conditions are projected, site-specific hazards are identified, routes of access and egress are identified, boat ramps (put-in and take-out points) are identified, the method of entrapment is considered, and areas with a high probability for victim location are determined.

#### Requisite Knowledge

1. Describe requisite contents of a site survey
2. Describe types, sources, and information provided by reference materials
3. Describe hydrology and the influence of hydrology on rescues
4. Describe types of hazards associated with water rescue practices scenarios, inspections practices, and considerations techniques
5. Describe risk/benefit analysis
6. Describe identification of hazard-specific PPE
7. Describe factors influencing access and egress routes
8. Describe behavioral patterns of victims
9. Describe environmental conditions that influence victim location

#### Requisite Skills

1. Interpret reference materials
2. Perform a scene assessment
3. Evaluate site conditions
4. Complete risk/benefit analysis
5. Select and use necessary PPE

#### Content Modification

Block	Modification	Justification

**Cross Reference**

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-5</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-5</li></ul>	N/A	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 6</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 6</li></ul>

## 2-2: Selecting Water Rescue PPE

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 17.2.2

### Job Performance Requirement

Select water rescue PPE, given a water rescue assignment and assorted items of personal protective and life-support equipment, so that the rescuer is protected from temperature extremes and environmental hazards, correct buoyancy is maintained, AHJ protocols are complied with, swimming ability is maximized, routine and emergency communications are established between components of the team, self-rescue needs have been evaluated and provided for, and pre-operation safety checks have been conducted.

### Requisite Knowledge

1. Identify manufacturer's recommendations for PPE
2. Describe standard operating procedures
3. Describe basic signals and communications techniques
4. Describe selection criteria of insulating garments
5. Describe buoyancy characteristics
6. Describe personal escape techniques
7. Describe applications for and capabilities of personal escape equipment
8. Describe hazard assessment
9. Describe AHJ protocols for equipment positioning
10. Describe classes of personal flotation devices
11. Describe selection criteria for personal protective clothing, personal flotation devices, and water rescue helmets
12. Describe personal escape techniques
13. Describe applications for and capabilities of personal escape equipment
14. Describe equipment and procedures for signaling distress

### Requisite Skills

1. Use PPE according to the manufacturer's directions
2. Don and doff equipment in an expedient manner
3. Use pre-operation checklists
4. Select personal flotation devices, water rescue helmets, and personal protective clothing and equipment
5. Don and doff personal flotation devices, water rescue helmets, and in-water insulating garments
6. Demonstrate proficiency in emergency escape procedures
7. Demonstrate proficiency in communicating distress signals
8. Demonstrate proficiency in communications

### Content Modification

Block	Modification	Justification
RS6	Added “demonstrate”.	NFPA did not provide a verb.
RS7	Added “demonstrate”.	NFPA did not provide a verb.
RS8	Added “demonstrate”.	NFPA did not provide a verb.

### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-10</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-10</li></ul>	Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Skill 8, 9</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 8, 9</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 11, 24</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 11, 28</li></ul>



## 2-3: Defining Search Parameters

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 17.2.3

### Job Performance Requirement

Define search parameters for a water rescue incident, given topographical maps of a search area; descriptions of all missing persons and incident history; and hydrologic data, including speed and direction of current or tides, so that areas with high probability of detection are differentiated from other areas, witnesses are interviewed, critical interview information is recorded, passive and active search tactics are implemented, personnel resources are considered and used, and search parameters are communicated.

### Requisite Knowledge

1. Describe topographical map components, hydrologic factors, and wave heights
2. Describe methods to determine areas of high probability of detection
3. Describe critical interview questions and practices
4. Describe methods to identify track traps
5. Describe ways to identify spotter areas and purposes for spotters
6. Describe personnel available and their effect on parameter definition
7. Describe the effect of search strategy defining parameters
8. Describe communication methods
9. Describe reporting requirements

### Requisite Skills

1. Interpret and correlate reference and size-up information
2. Evaluate site conditions
3. Complete risk/benefit analysis
4. Apply safety, communications, and operational protocols
5. Specify PPE requirements
6. Determine rescue personnel requirements

### Content Modification

Block	Modification	Justification

**Cross Reference**

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-15</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-15</li></ul>	Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 12, 13, 14, 15, 16</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 16</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 16, 28</li></ul>

## 2-4: Developing an Action Plan for a Shore-based Rescue

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 17.2.4

### Job Performance Requirement

Develop an action plan for a shore-based rescue of a single or multiple water-bound victim(s), given an operational plan and a water rescue tool kit, so that all information is factored, risk/benefit analysis is conducted, protocols are followed, hazards are identified and minimized, personnel and equipment resources will not be exceeded, assignments are defined, consideration is given to evaluating changing conditions, and the selected strategy and tactics fit the conditions.

### Requisite Knowledge

1. Describe elements of an action plan
2. Describe types of information provided by reference materials and size-up
3. Describe hydrology
4. Describe types of hazards associated with water rescue practices
5. Describe risk/benefit analysis
6. Identify hazard-specific PPE
7. Describe factors influencing access and egress routes
8. Describe behavioral patterns of victims
9. Describe environmental conditions that influence victim location
10. Describe safety, communications, and operational protocols
11. Describe resource capability and availability

### Requisite Skills

1. Interpret and correlate reference and size-up information
2. Evaluate site conditions
3. Complete risk/benefit analysis
4. Apply safety, communications, and operational protocols
5. Specify PPE requirements
6. Determine rescue personnel requirements

### Content Modification

Block	Modification	Justification

**Cross Reference**

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-6</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-6</li></ul>	Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Skill 3</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 3</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 2, 24</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 7, 28</li></ul>

## 2-5: Deploying a Water Rescue Reach Device

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 17.2.5

### Job Performance Requirement

Deploy a water rescue reach device to a water-bound victim, given required equipment and PPE so that the deployed equipment reaches the victim(s), the rescue equipment does not slip through the rescuer's hands, the victim is moved to the rescuer's shoreline, the victim is not pulled beneath the surface by rescuer efforts, the rescuer is not pulled into the water by the victim, and neither the rescuer nor the victim is tied to or entangled in the device.

### Requisite Knowledge

1. Describe types and capabilities of PPE
2. Describe effects of hydrodynamic forces on rescuers and victims
3. Describe physiological effects of immersion
4. Describe hydrology and characteristics of water
5. Describe behaviors of water-bound victims
6. Describe water rescue rope-handling techniques
7. Identify incident-specific hazards
8. Describe criteria for selecting victim retrieval locations based on the water environment and conditions
9. Describe hazards and limitations of shore-based rescue
10. Describe local policies and procedures for rescue team activation
11. Describe information on local water environments

### Requisite Skills

1. Select and don PPE specific to the water environment
2. Identify water hazards (i.e., upstream or downstream, current or tide)
3. Identify hazards directly related to the specific rescue
4. Demonstrate appropriate shore-based victim removal techniques

### Content Modification

Block	Modification	Justification

**Cross Reference**

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-18</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-18</li></ul>	Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 23</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 19</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 19, 28</li></ul>

## 2-6: Deploying a Water Rescue Rope

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 17.2.6

### Job Performance Requirement

Deploy a water rescue rope to a water-bound victim, given a water rescue rope in a throw bag, a coiled water rescue rope 50 ft to 75 ft (15.24 m to 22.86 m) in length, and PPE, so that the deployed rope lands within reach of the victim, the rescue rope does not slip through the rescuer's hands, the victim is moved to the rescuer's shoreline, the victim is not pulled beneath the surface by rescuer efforts, the rescuer is not pulled into the water by the victim, and neither the rescuer nor the victim is tied to or entangled in the throw line.

### Requisite Knowledge

1. Describe types and capabilities of PPE
2. Describe effects of hydrodynamic forces on rescuers and victims
3. Describe hydrology and characteristics of water
4. Describe behaviors of water-bound victims
5. Describe water rescue rope-handling techniques
6. Describe incident-specific hazard identification
7. Describe criteria for selecting victim retrieval locations based on the water environment and conditions
8. Describe hazards and limitations of shore-based rescue
9. Describe local policies and procedures for rescue team activation
10. Describe information on local water environments

### Requisite Skills

1. Deploy both a water rescue rope bag and a coiled water rescue rope
2. Select and don PPE specific to the water environment
3. Identify water hazards (e.g., upstream or downstream, current or tide)
4. Identify hazards directly related to the specific rescue
5. Demonstrate appropriate shore-based victim removal techniques

### Content Modification

Block	Modification	Justification

**Cross Reference**

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-18</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-18</li></ul>	Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 23</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 19</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 19, 28</li></ul>



## 2-7: Developing and Implementing an Action Plan to Use Watercraft

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 17.2.7

### Job Performance Requirement

Develop and implement an action plan for the use of watercraft to support the rescue of a single or multiple water-bound victims, given watercraft, operator(s), and policies and procedures used by the AHJ, so that watercraft pre-deployment checks are completed; watercraft launch or recovery is achieved; rescuers are deployed and recovered; both onboard and rescue operations conform with watercraft operational protocols and capabilities; communications are clear and concise; and the candidate is familiar with watercraft nomenclature, operational protocols, design limitations, and launch/recovery site issues.

### Requisite Knowledge

1. Describe entry/exit procedures
2. Describe communications techniques
3. Describe boat operation techniques
4. Describe design limitations
5. Describe climatic conditions, tides, and currents

### Requisite Skills

1. Implement access and egress procedures and communications with watercraft crew
2. Use emergency/safety equipment
3. Identify hazards
4. Operate within the rescue environment

### Content Modification

Block	Modification	Justification
RK5	Changed “climactic” to “climatic”.	NFPA used the wrong word.

### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-8</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-8</li></ul>	N/A	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 9</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 9</li></ul>

## 2-8: Defining Procedures to Support Helicopter Water Operations

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 17.2.8

### Job Performance Requirement

Define procedures to provide support for helicopter water rescue operations within the area of responsibility for the AHJ, given a helicopter service, operational protocols, helicopter capabilities and limitations, water rescue procedures, and risk factors influencing helicopter operations, so that air-to-ground communication is established and maintained, applications are within the capabilities and skill levels of the helicopter service, the applications facilitate victim extraction from water hazards that are representative of the bodies of water existing or anticipated within the geographic confines of the AHJ, air crew and ground personnel safety are not compromised, landing zones are designated and secured, and fire suppression resources are available at the landing zone.

### Requisite Knowledge

1. Describe local aircraft capabilities and limitations
2. Describe landing zone requirements
3. Describe hazards to aircraft
4. Describe local protocols
5. Describe procedures for operating around aircraft
6. Describe dynamics of rescue options
7. Describe crash survival principles
8. Describe PPE limitations and selection criteria
9. Describe ancillary helicopter rescue equipment
10. Describe helicopter surf rescue procedures

### Requisite Skills

1. Determine applicability of air operations
2. Establish and control landing zones
3. Assess fire protection needs
4. Communicate with air crews
5. Identify hazards
6. Rig aircraft for anticipated rescue procedures
7. Apply crash survival procedures
8. Select and use PPE
9. Work with air crews to rescue a victim from the water

### Content Modification

Block	Modification	Justification

**Cross Reference**

<b>Course Plan</b>	<b>Training Record</b>	<b>Task Book</b>
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-9</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-9</li></ul>	N/A	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 10</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 10</li></ul>

## 2-9: Implementing Procedures for Performing Watercraft-based Rescue

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 17.2.9

### Job Performance Requirement

Implement procedures for performing watercraft-based rescue of an incapacitated, water-bound victim, as a member of a team, given a water hazard that is representative of the anticipated rescue environment watercraft that is available to the team (if applicable), designated victim packaging and management equipment, and water rescue PPE, so that the control and stability of the watercraft is maintained, risks to the victim and rescuers are minimized, and the victim is removed from the hazard.

### Requisite Knowledge

1. Describe limitations and uses of available watercraft
2. Describe local environmental access and egress procedures
3. Describe parbuckling (rollup) techniques
4. Describe dynamics of moving water and its effects on watercraft handling
5. Describe conditional requirements for PPE
6. Describe the effects of extrication on watercraft handling and stability

### Requisite Skills

1. Move about in a designated watercraft in conditions representative of the anticipated rescue environment while managing the movement of a water-bound victim using techniques identified by the AHJ

### Content Modification

Block	Modification	Justification

### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-19</li></ul>	Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 24</li></ul>	Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 20, 28</li></ul>

## 2-10: Demonstrating Survival Swimming and Self-rescue Skills

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 17.2.10

### Job Performance Requirement

Demonstrate fundamental survival swimming and self-rescue skills, given safety equipment, props, and a controlled setting representative of the anticipated rescue environment, so that the risk of injury is minimized, flotation is maintained, available PPE is utilized, and egress is accomplished.

### Requisite Knowledge

1. Describe basic forward stroke swimming theory (surface skills)

### Requisite Skills

1. Apply basic swimming skills, including the ability to swim and float in different water conditions with and without flotation aids or swimming aids as required
2. Apply water survival skills
3. Don and doff PPE
4. Select and use PPE, flotation aids, and swim aids
5. Use communications systems
6. Evaluate water conditions to identify entry points and hazards

### Content Modification

Block	Modification	Justification
RS1	Added "Apply".	NFPA did not provide a verb.

### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-20</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-21</li></ul>	Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 31</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 21</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 22, 28</li></ul>

## 2-11: Identifying Procedures for Operating Water Rescue Rope Systems

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 17.2.11

### Job Performance Requirement

Identify procedures for operation of rope systems particular to the water rescue needs of the AHJ, given rescue personnel, an established rope system, a load to be moved, and PPE, so that the movement is controlled, the load is held in place when needed, and operating methods do not stress the system.

### Requisite Knowledge

1. Describe ways to determine incident needs as related to the operation of rope systems
2. Describe capabilities and limitations of various rope systems
3. Describe incident site evaluation as related to interference concerns and obstacle negotiation
4. Describe system safety check protocols
5. Describe procedures to evaluate system components for compromised integrity
6. Describe common personnel assignments and duties
7. Describe assignment considerations
8. Describe common and critical operational commands
9. Describe common rope system problems and ways to minimize or manage them
10. Describe ways to increase the efficiency of load movement

### Requisite Skills

1. Determine incident needs
2. Complete a system safety check
3. Evaluate system components for compromised integrity
4. Select personnel
5. Communicate with personnel
6. Manage movement of the load
7. Evaluate for potential problems

### Content Modification

Block	Modification	Justification

**Cross Reference**

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-19</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-20</li></ul>	Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 25, 26, 27, 28, 29, 30</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 20</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 21, 28</li></ul>

## 2-12: Supporting Water Rescue Operations

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 17.2.12

### Job Performance Requirement

Support operations, given a designated mission, safety equipment, props, and water body, so that skills are demonstrated in a controlled environment, performance parameters are achieved, hazards are continually assessed, correct buoyancy control is maintained, and emergency procedures are demonstrated.

### Requisite Knowledge

1. Describe support procedures including search patterns, operation support equipment, and communications issues

### Requisite Skills

1. Apply basic support skills, including the ability to act as spotters and tend to water rescuers

### Content Modification

Block	Modification	Justification
RS1	Added "Apply".	NFPA didn't provide a verb.

### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-14</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-14</li></ul>	Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Skill 12</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 11</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 15, 24</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 15, 28</li></ul>



## 2-13: Terminating an Incident

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 17.2.13

### Job Performance Requirement

Terminate an incident, given PPE specific to the incident, isolation barriers, and a tool cache, so that rescuers and bystanders are protected and accounted for during termination operations; the party responsible is notified of any modifications or damage created during the operational period; documentation of loss or material use is accounted for, scene documentation is performed, and scene control is transferred to a responsible party; potential or existing hazards are communicated to that responsible party; debriefing and post-incident analysis and critique are considered; and command is terminated.

### Requisite Knowledge

1. Describe PPE characteristics
2. Identify hazards and risks
3. Describe isolation techniques
4. Describe statutory requirements identifying responsible parties
5. Describe accountability system use
6. Describe reporting methods
7. Describe post-incident analysis techniques

### Requisite Skills

1. Select and use task and hazard-specific PPE
2. Decontaminate PPE
3. Use barrier protection techniques
4. Collect data
5. Follow record-keeping/reporting protocols
6. Conduct post-incident analysis activities

### Content Modification

Block	Modification	Justification
JPR	Changed "kit" to "cache".	Agencies do not have specific tower rescue tool kits; they assemble tools as needed from their general tool cache.

**Cross Reference**

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-22</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-26</li></ul>	Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Skill 14</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 51</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 23, 24</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 27, 28</li></ul>

## Section 3: Technician

### 3-1: Swimming a Designated Water Course

#### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 17.3.1

#### Job Performance Requirement

Swim a designated water course, given a course designated by the AHJ as demonstrating the capabilities necessary to operate in the anticipated rescue environment, water rescue PPE, and swim aids as required, so that the specified objective is reached, all performance parameters are achieved, movement is controlled, hazards are continually assessed, distress signals are communicated, and rapid intervention for the rescuer has been staged for deployment.

#### Requisite Knowledge

1. Describe hydrology and specific hazards anticipated for representative water rescue environments (shoreline, in-water, and climatic)
2. Describe selection criteria for water rescue PPE and swim aids for anticipated water conditions and hazards
3. Describe swimming techniques for a representative body of water

#### Requisite Skills

1. Swim and float over the required distances and for the necessary duration as outlined in the watermanship test found in Annex M with and without flotation aids or swim aids
2. Apply water survival skills
3. Don and doff PPE
4. Select and use swim aids
5. Use communications systems
6. Evaluate water conditions to identify entry points and hazards

#### Content Modification

Block	Modification	Justification

**Cross Reference**

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-20</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-21</li></ul>	Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 31</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 21</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 22, 28</li></ul>

### 3-2: Performing a Swimming Surface Water Rescue

#### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 17.3.2

#### Job Performance Requirement

Perform a swimming surface water rescue, given a simulated victim, water rescue PPE, conditions representative of the anticipated rescue environment, swim aids as required, flotation aids for victims, and reach/extension devices, so that victim contact is maintained, the rescuer maintains control of the victim, the rescuer and the victim reach safety at a predetermined area, and medical conditions and treatment options are considered.

#### Requisite Knowledge

1. Describe hydrology and specific hazards anticipated for a representative water rescue environment (shoreline, in-water, and climatic)
2. Describe victim behavior patterns
3. Describe emergency countermeasures for combative victims
4. Describe selection criteria for water rescue PPE, swim aids, and flotation aids for anticipated water conditions
5. Describe victim abilities and hazards
6. Describe swimming techniques for representative bodies of water
7. Describe signs, symptoms, and treatment of aquatic medical emergencies

#### Requisite Skills

1. Swim and float in different water conditions with and without flotation aids or swim aids
2. Apply water survival skills
3. Manage combative water-bound victims
4. Don and doff PPE
5. Select and use PPE, flotation aids, and swim aids
6. Utilize communications systems
7. Select equipment and techniques for treatment of aquatic medical emergencies
8. Evaluate water conditions to identify entry points and hazards

#### Content Modification

Block	Modification	Justification

**Cross Reference**

<b>Course Plan</b>	<b>Training Record</b>	<b>Task Book</b>
Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-22</li></ul>	Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48</li></ul>	Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 23, 28</li></ul>

### 3-3: Demonstrating Defensive Tactics in the Water Rescue Environment

#### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 17.3.3

#### Job Performance Requirement

Demonstrate defensive tactics in the water rescue environment, given a water-bound victim in a stressed or panicked situation, so that the rescuer can maintain separation from the victim to create or maintain personal safety and can perform self-defense techniques to prevent rescuer submersion if direct contact is made between a panicked victim and the rescuer.

#### Requisite Knowledge

1. Describe basic emergency procedures for applicable environments and situations with stressed or panicked victims at water rescues

#### Requisite Skills

1. Release oneself effectively from the grasp of a panicked victim, including blocks, releases, and escapes

#### Content Modification

Block	Modification	Justification

#### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-22</li></ul>	Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48</li></ul>	Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 23, 28</li></ul>

### 3-4: Performing an Entry Surface Rescue from a Rescue Platform

#### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 17.3.4

#### Job Performance Requirement

Perform an entry surface rescue from a rescue platform (such as a vessel, boat, watercraft, or other waterborne transportation aid) while negotiating a designated surface course, given a course that is representative of the bodies of surface water existing or anticipated within the geographical confines of the AHJ, water rescue PPE, and swim aids, so that the specific objective is reached, the victim is retrieved, movement is controlled, hazards are continually assessed, distress signals are demonstrated, and rapid intervention for the rescuer has been staged for deployment.

#### Requisite Knowledge

1. Describe watercraft operational characteristics
2. Describe hydrology features
3. Describe water entry and exit techniques
4. Describe water-bound victim management

#### Requisite Skills

1. Operate watercraft
2. Stabilize and maneuver watercraft
3. Implement access and egress procedures
4. Recover a capsized vessel
5. Package and manage waterborne victims
6. Use hand signals

#### Content Modification

Block	Modification	Justification
RS1	Changed “Watercraft operations” to “Operate watercraft”.	Adjusted word order to fit template.
RS2	Changed “Watercraft stability and maneuvering techniques” to “Stabilize and maneuver watercraft”.	Adjusted word order to fit template.
RS3	Changed “Rescuer entry and egress methods” to “Implement access and egress procedures”.	Adjusted word order to fit template.
RS4	Changed “Capsized vessel upset recovery techniques” to “Recover a capsized vessel”.	Adjusted word order to fit template.
RS5	Changed “Waterborne victim packaging and management techniques” to “Package and manage waterborne victims”.	Adjusted word order to fit template.



Surface Water Rescue  
Section 3: Technician

RS6	Added "Use".	NFPA didn't provide a verb.
-----	--------------	-----------------------------

**Cross Reference**

<b>Course Plan</b>	<b>Training Record</b>	<b>Task Book</b>
Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-23</li></ul>	Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 49</li></ul>	Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 24, 28</li></ul>

### 3-5: Directing a Rescue Team During Operations

#### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 17.3.5

#### Job Performance Requirement

Direct a rescue team during operations, given incident checklists, maps, topographic surveys, and charts, so that teams are managed, personnel are supervised, hazards are assessed and identified, safety and health of the team is ensured, qualifications/abilities of rescuers are verified, pre-entry briefing is conducted, and debriefing is performed.

#### Requisite Knowledge

1. Describe supervisory practices
2. Describe emergency procedures
3. Describe communications procedures
4. Describe local protocols
5. Describe safety checks
6. Describe personnel accountability techniques

#### Requisite Skills

1. Implement emergency procedures
2. Implement communications procedures
3. Implement incident management
4. Implement personnel accountability
5. Implement resource management

#### Content Modification

Block	Modification	Justification

#### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-21</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-25</li></ul>	N/A	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 22</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 26</li></ul>

# Swiftwater Rescue

## Section 4: Awareness

### 4-1: Sizing Up a Swiftwater Rescue Incident

#### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 18.1.1

#### Job Performance Requirement

Size up a swiftwater rescue incident, given background information and applicable reference materials, so that the scope of the rescue is determined, the number of victims is identified, the last reported location of all the victims is established, witnesses and reporting parties are identified and interviewed, resource needs are assessed, primary search parameters are identified, and information required to develop an initial incident action plan is obtained.

#### Requisite Knowledge

1. Describe types of reference materials and their uses
2. Describe availability and capability of the resources
3. Describe elements of an incident action plan and related information
4. Describe relationship of the size-up to the incident management system
5. Describe information gathering techniques and how that information is used in the size-up process
6. Describe basic search criteria for swiftwater rescue incidents

#### Requisite Skills

1. Read technical rescue reference materials
2. Gather information
3. Use interview techniques
4. Relay information
5. Use information-gathering sources

#### Content Modification

Block	Modification	Justification

### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-6</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-6</li></ul>	Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Skill 3</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 3</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 7, 24</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 7, 28</li></ul>

## 4-2: Recognizing Incident Hazards and Initiating Isolation Procedures

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 18.1.2

### Job Performance Requirement

Recognize incident hazards and initiate isolation procedures, given scene control barriers, personal protective equipment (PPE), requisite equipment, and available specialized resources, so that all hazards are identified; resource application fits the operational requirements; hazard isolation is considered; risks to rescuers, bystanders, and victims are minimized; and rescue time constraints are taken into account.

### Requisite Knowledge

1. Describe resource capabilities and limitations
2. Describe types and nature of incident hazards
3. Describe equipment types and their use
4. Describe isolation terminology, methods, equipment, and implementation
5. Describe operational requirement concerns
6. Describe common types of rescuer and victim risks
7. Describe risk/benefit analysis methods and practices
8. Describe hazard recognition, isolation methods, and terminology
9. Describe methods for controlling access to the scene
10. Describe types of technical references

### Requisite Skills

1. Identify resource capabilities and limitations
2. Identify incident hazards
3. Assess potential hazards to rescuers and bystanders
4. Place scene control barriers
5. Operate control and mitigation equipment

### Content Modification

Block	Modification	Justification

### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-3</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-3</li></ul>	Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Skill 1</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 1</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 4, 24</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 4, 28</li></ul>

### 4-3: Recognizing the Need for Technical Rescue Resources

#### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 18.1.3

#### Job Performance Requirement

Recognize the need for technical rescue resources at an operations- or technician-level incident, given AHJ guidelines, so that the need for additional resources is identified, the response system is initiated, the scene is secured and rendered safe until additional resources arrive, and awareness-level personnel are incorporated into the operational plan.

#### Requisite Knowledge

1. Describe operational protocols
2. Identify specific planning forms
3. Describe types of incidents common to the AHJ
4. Describe hazards
5. Describe incident support operations and resources
6. Describe safety measures

#### Requisite Skills

1. Apply operational protocols
2. Select specific planning forms based on the types of incidents
3. Identify and evaluate various types of hazards within the AHJ
4. Request support and resources
5. Determine the required safety measures

#### Content Modification

Block	Modification	Justification

#### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-1</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-1</li></ul>	N/A	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 2</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 2</li></ul>

## 4-4: Supporting an Operations- or Technician-level Incident

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 18.1.4

### Job Performance Requirement

Support an operations- or technician-level incident, given an incident, an assignment, an incident action plan, and resources from the tool kit, so that the assignment is carried out, progress is reported to command, environmental concerns are managed, personnel rehabilitation is facilitated, and the incident action plan is supported.

### Requisite Knowledge

1. Describe AHJ operational protocols
2. Describe hazard recognition
3. Describe incident management
4. Describe PPE selection
5. Describe resource selection and use
6. Describe scene support requirements

### Requisite Skills

1. Apply operational protocols
2. Function within an incident management system
3. Follow and implement an incident action plan
4. Report the task progress status to a supervisor or incident command

### Content Modification

Block	Modification	Justification

### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-14</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-14</li></ul>	Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Skill 12</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 11</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 5, 24</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 15, 28</li></ul>



## Section 5: Operations

### 5-1: Constructing Rope Rescue Systems

#### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 18.2.1

#### Job Performance Requirement

Construct rope systems particular to the swiftwater rescue needs of the AHJ, given rescue personnel, rope equipment, a load to be moved, and personal protective equipment (PPE), so that the movement is controlled, the load is held in place when needed, and operating methods do not stress the system.

#### Requisite Knowledge

1. Describe rope systems specific to the swiftwater environment
2. Describe the capabilities and limitations of various rope systems
3. Describe incident site evaluation as related to interference concerns and obstacle negotiation
4. Describe system safety check protocols
5. Describe procedures to evaluate system components for compromised integrity
6. Describe common personnel assignments and duties
7. Describe common and critical operational commands
8. Describe methods to increase the efficiency of load movement

#### Requisite Skills

1. Determine incident needs
2. Complete a system safety check
3. Evaluate system components for compromised integrity
4. Select personnel
5. Communicate with personnel
6. Manage movement of the load
7. Evaluate for potential problems

#### Content Modification

Block	Modification	Justification

### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-19</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-20</li></ul>	Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 25, 26, 27, 28, 29, 30</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 20</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 21, 28</li></ul>

## 5-2: Supporting Swiftwater Operations

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 18.2.2

### Job Performance Requirement

Support swiftwater operations, given a designated mission, safety equipment, props, and water body, so that skills are demonstrated in a controlled environment, performance parameters are achieved, hazards are continually assessed, personnel accountability is maintained, and emergency procedures are demonstrated.

### Requisite Knowledge

1. Describe support procedures, including search patterns, equipment setup, operation support equipment, and communications issues

### Requisite Skills

1. Execute basic support skills, including the ability to serve as an upstream or downstream safety spotter, and the ability to implement personnel accountability systems and tend to an in-water rescuer

### Content Modification

Block	Modification	Justification

### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-14</li></ul>	Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Skill 12</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 15, 24</li></ul>
Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-14</li></ul>	Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 11</li></ul>	Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 15, 28</li></ul>

### 5-3: Assessing Hazards to Rescuers and Victims

#### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 18.2.3

#### Job Performance Requirement

Assess moving water conditions, characteristics, and features in terms of hazards to the rescuer and victims, given an incident scenario and swiftwater tool kit, so that the flow and conditions are estimated accurately, mechanisms of entrapment are considered, hazards are assessed, the depth and surrounding terrain are evaluated, and findings are documented.

#### Requisite Knowledge

1. Describe flow calculation methods
2. Describe map or chart reading
3. Describe local water hazards and conditions
4. Describe entrapment mechanisms
5. Describe human physiology and survival factors

#### Requisite Skills

1. Determine flow and environmental factors
2. Describe the effects on victims and rescuers
3. Interpret maps or charts

#### Content Modification

Block	Modification	Justification
RS2	Added "Describe".	NFPA did not provide a verb.

#### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-4</li></ul>	Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Skill 2</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 5, 24</li></ul>
Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-4</li></ul>	Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 2</li></ul>	Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 5, 28</li></ul>

## 5-4: Performing a Non-water Entry Rescue

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 18.2.4

### Job Performance Requirement

Perform a non-water entry rescue in the swiftwater and flooding environment, given an incident scenario, PPE, and swiftwater rescue tool kit, so that rescue is accomplished, and adopted policies and safety procedures are followed.

### Requisite Knowledge

1. Describe types and capabilities of PPE
2. Describe the effects of hydrodynamic forces on rescuers and victims
3. Describe hydrology and characteristics of water
4. Describe behaviors of water-bound victims
5. Describe water rescue rope-handling techniques
6. Describe incident-specific hazard identification
7. Describe criteria for selecting victim retrieval locations based on the water environment and conditions
8. Describe hazards and limitations of shore-based rescue
9. Describe local policies/procedures for rescue team activation
10. Describe information on local water environments

### Requisite Skills

1. Select and use task-specific PPE
2. Identify water hazards (i.e., upstream or downstream, current or tide)
3. Identify hazards directly related to the specific rescue
4. Demonstrate appropriate shore-based victim removal techniques

### Content Modification

Block	Modification	Justification

### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-18</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-18</li></ul>	Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 23</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 19</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 19, 28</li></ul>

## 5-5: Terminating an Incident

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 18.2.5

### Job Performance Requirement

Terminate an incident, given PPE specific to the incident, isolation barriers, and a tool kit, so that rescuers and bystanders are protected and accounted for during termination operations; the party responsible is notified of any modifications or damage created during the operational period; documentation of loss or material use is accounted for; scene documentation is performed; and control is transferred to a responsible party; potential or existing hazards are communicated to that responsible party; debriefing, post-incident analysis, and critique are conducted; and command is terminated.

### Requisite Knowledge

1. Describe PPE characteristics
2. Describe hazard and risk identification
3. Describe isolation techniques
4. Describe statutory requirements identifying responsible parties
5. Describe accountability system use
6. Describe reporting methods
7. Describe post-incident analysis techniques

### Requisite Skills

1. Select and use hazard-specific PPE
2. Decontaminate PPE
3. Use barrier protection techniques
4. Use data collection and record-keeping/reporting protocols
5. Participate in conduct post-incident analysis activities

### Content Modification

Block	Modification	Justification

**Cross Reference**

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-22</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-26</li></ul>	Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Skill 14</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 51</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 23, 24</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 27, 28</li></ul>



## Section 6: Technician

### 6-1: Performing an Entry Rescue

#### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 18.3.1

#### Job Performance Requirement

Perform an entry rescue in the swiftwater and flooding environment, given an incident scenario, PPE, and swiftwater rescue tool kit, so that rescue is accomplished and adopted policies and safety procedures are followed.

#### Requisite Knowledge

1. Describe types and capabilities of PPE
2. Describe the effects of hydrodynamic forces on rescuers and victims
3. Describe hydrology and characteristics of water
4. Describe behaviors of water-bound victims
5. Describe water rescue rope-handling techniques
6. Describe incident-specific hazard identification
7. Describe criteria for selecting victim retrieval locations based on the water environment and conditions
8. Describe hazards and limitations of shore-based rescue
9. Describe personnel accountability protocols
10. Describe information on local water environments

#### Requisite Skills

1. Select and utilize task-specific PPE
2. Identify water hazards (i.e., upstream or downstream, current or tide)
3. Identify hazards directly related to the specific rescue
4. Demonstrate appropriate victim packaging and removal techniques
5. Use a personnel accountability system

#### Content Modification

Block	Modification	Justification

**Cross Reference**

Course Plan	Training Record	Task Book
Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-22</li></ul>	Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48</li></ul>	Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 23, 28</li></ul>

## 6-2: Negotiating a Designated Swiftwater Course

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 18.3.2

### Job Performance Requirement

Negotiate a designated swiftwater course, given a course that is representative of the bodies of swiftwater existing or anticipated within the geographic confines of the AHJ, water rescue PPE, and swim aids as required, so that the specified objective is reached, all performance parameters are achieved, movement is controlled, hazards are continually assessed, distress signals are demonstrated, and rapid intervention for the rescuer has been staged for deployment.

### Requisite Knowledge

1. Describe hydrology and specific hazards anticipated for representative water rescue environments (shoreline, in-water, and climatic)
2. Describe selection criteria for water rescue PPE and swim aids for anticipated water conditions and hazards
3. Describe swimming techniques for a representative body of water
4. Describe personnel accountability methods

### Requisite Skills

1. Swim and float in different water conditions with and without flotation aids or swim aids as required
2. Apply water survival skills
3. Don and doff PPE
4. Select and use swim aids
5. Utilize communications systems
6. Implement personnel accountability protocols
7. Evaluate water conditions to identify entry points and hazards

### Content Modification

Block	Modification	Justification

**Cross Reference**

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-20</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-21</li></ul>	Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 31</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 21</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 22, 28</li></ul>

### 6-3: Performing an Entry Swiftwater Rescue from a Rescue Platform

#### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 18.3.3

#### Job Performance Requirement

Perform an entry swiftwater rescue from a rescue platform such as a vessel, boat, watercraft, or other waterborne transportation aid while negotiating a designated swiftwater course, given a course that is representative of the bodies of swiftwater existing or anticipated within the geographical confines of the AHJ, water rescue PPE, and swim aids as required, so that the specific objective is reached, all performance parameters are achieved, movement is controlled, hazards are continually assessed, distress signals are demonstrated, personnel accountability is implemented, and rapid intervention for the rescuers has been staged for deployment.

#### Requisite Knowledge

1. Describe the application and safe operation of the waterborne transportation device and its limitations
2. Describe follow all manufacturers' recommendations
3. Describe comply with all the regulatory and applicable laws of safe water transportation according to the AHJ
4. Describe how to understand personnel accountability methods

#### Requisite Skills

1. Locate water entry and egress methods from the platform used
2. Assess swiftwater conditions
3. Recover capsized vessels
4. Move vessels in swiftwater conditions
5. Implement personnel accountability methods
6. Understand patient packaging and handling techniques

#### Content Modification

Block	Modification	Justification
RK4	Added "how to".	Added for grammar.

#### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-23</li></ul>	Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 49</li></ul>	Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 24, 28</li></ul>

# Floodwater Rescue

## Section 7: Awareness

### 7-1: Sizing Up a Floodwater Incident

#### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 23.1.1

#### Job Performance Requirement

Size up a floodwater rescue incident, given an incident, background information, and applicable reference materials, so that the operational mode is defined; resource availability, response times, and types of rescues are determined; the number of victims is identified; the last reported locations of all the victims is established; witnesses and reporting parties are identified and interviewed; resource needs are assessed; search parameters are identified; and information required to develop an incident action plan is obtained.

#### Requisite Knowledge

1. Describe types of reference materials and their uses
2. Describe risk/benefit assessment
3. Describe availability and capability of the resources
4. Describe elements of an incident action plan and related information
5. Describe relationship of the size-up to the incident management system
6. Describe information gathering techniques and how that information is used in the size-up process
7. Describe basic search criteria for floodwater rescue incidents

#### Requisite Skills

1. Read specific rescue reference materials
2. Interview people
3. Gather information
4. Relay information
5. Manage witnesses
6. Use information sources

#### Content Modification

Block	Modification	Justification
RK4	Added "incident".	"Incident action plan" is more common terminology.

### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-6</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-6</li></ul>	Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Skill 3</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 3</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 7, 24</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 7, 28</li></ul>

## 7-2: Recognizing Incident Hazards and Initiating Isolation Procedures

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 23.1.2

### Job Performance Requirement

Recognize incident hazards and initiate isolation procedures, given scene control barriers, personal protective equipment (PPE), requisite equipment, and available specialized resources, so that all hazards are identified; resource application fits the operational requirements; hazard isolation is considered; risks to rescuers, bystanders, and victims are minimized; and rescue time constraints are taken into account.

### Requisite Knowledge

1. Describe resource capabilities and limitations
2. Describe types and nature of incident hazards
3. Describe equipment types and their use
4. Describe isolation terminology, methods, equipment, and implementation
5. Describe operational requirement concerns
6. Describe common types of rescuer and victim risks
7. Describe risk/benefit analysis methods and practices
8. Describe hazard recognition, isolation methods, and terminology
9. Describe methods for controlling access to the scene
10. Describe types of technical references

### Requisite Skills

1. Identify resource capabilities and limitations
2. Identify incident hazards
3. Assess potential hazards to rescuers and bystanders
4. Place scene control barriers
5. Operate control and mitigation equipment

### Content Modification

Block	Modification	Justification



**Cross Reference**

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-3</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-3</li></ul>	Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Skill 1</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 1</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 4, 24</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 4, 28</li></ul>

### 7-3: Recognizing the Need for Technical Resources

#### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 23.1.3

#### Job Performance Requirement

Recognize the need for technical rescue resources at an operations- or technician-level incident, given AHJ guidelines, so that the need for additional resources is identified, the response system is initiated, the scene is secured and rendered safe until additional resources arrive, and awareness-level personnel are incorporated into the operational plan.

#### Requisite Knowledge

1. Describe operational protocols
2. Identify specific planning forms
3. Describe types of incidents common to the AHJ
4. Describe hazards
5. Describe incident support operations and resources
6. Describe safety measures

#### Requisite Skills

1. Apply operational protocols
2. Select specific planning forms based on the types of incidents
3. Identify and evaluate various types of hazards within the AHJ
4. Request support and resources
5. Determine the required safety measures

#### Content Modification

Block	Modification	Justification

#### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-1</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-1</li></ul>	N/A	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 2</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 2</li></ul>

## 7-4: Supporting an Operations- or Technician-level Incident

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 23.1.4

### Job Performance Requirement

Support an operations- or technician-level incident, given an incident, an assignment, an incident action plan, and resources from the tool kit, so that the assignment is carried out, progress is reported to command, environmental concerns are managed, personnel rehabilitation is facilitated, and the incident action plan is supported.

### Requisite Knowledge

1. Describe AHJ operational protocols
2. Describe hazard recognition
3. Describe incident management
4. Describe PPE selection
5. Describe resource selection and use
6. Describe scene support requirements

### Requisite Skills

1. Apply operational protocols
2. Function within an incident management system
3. Follow and implement an incident action plan
4. Report the task progress status to a supervisor or incident command

### Content Modification

Block	Modification	Justification

### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-14</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-14</li></ul>	Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Skill 12</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 11</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 15, 24</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 15, 28</li></ul>

## Section 8: Operations

### 8-1: Supporting Technician-level Floodwater Rescue Operations

#### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 23.2.1

#### Job Performance Requirement

Support technician-level floodwater rescue operations, given a designated mission, safety equipment, props, and water body, so that skills are demonstrated in a controlled environment, performance parameters are achieved, hazards are continually assessed, and emergency procedures are demonstrated.

#### Requisite Knowledge

1. Describe support procedures, including search patterns, equipment setup, operating support equipment, and communications systems

#### Requisite Skills

1. Execute basic support skills, including the ability to serve as a safety or spotter and tend an in-water rescuer

#### Content Modification

Block	Modification	Justification

#### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-14</li></ul>	Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Skill 12</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 15, 24</li></ul>
Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-14</li></ul>	Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 11</li></ul>	Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 15, 28</li></ul>

## 8-2: Assessing Hazards to Rescuers and Victims

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 23.2.2

### Job Performance Requirement

Assess floodwater conditions, characteristics, and features in terms of hazards to the rescuer and victims, given an incident scenario and a floodwater tool kit, so that flow and conditions are estimated, depth and surrounding terrain are evaluated, and findings are documented.

### Requisite Knowledge

1. Describe flow calculation methods
2. Describe the characteristics of floodwater events
3. Describe map reading
4. Describe interpreting local terrain data
5. Describe local water hazards and conditions
6. Describe entrapment mechanisms
7. Describe weather forecasts
8. Describe human physiology and survival factors

### Requisite Skills

1. Assess water flow and environmental factors
2. Acquire and interpret weather forecasts and local terrain data and evaluate their impact on victims and rescuers

### Content Modification

Block	Modification	Justification

### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-4</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-4</li></ul>	Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Skill 2</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 2</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 5, 24</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 5, 28</li></ul>

### 8-3: Performing a Non-entry Rescue

#### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 23.2.3

#### Job Performance Requirement

Perform a non-entry rescue in the floodwater environment, given an incident scenario, PPE, and a floodwater rescue tool kit, so that rescue is accomplished, and adopted policies and safety procedures are followed.

#### Requisite Knowledge

1. Describe types and capabilities of PPE
2. Describe effects of hydrodynamic forces on rescuers and victims
3. Describe hydrology and characteristics of water
4. Describe behaviors of water-bound victims
5. Describe water rescue rope-handling techniques
6. Describe incident-specific hazard identification
7. Describe criteria for selecting victim retrieval locations based on water environment and conditions
8. Describe hazards and limitations of shore-based rescue
9. Describe local policies/procedures for rescue team activation
10. Describe information on local water environments

#### Requisite Skills

1. Select PPE specific to the water environment
2. Don PPE
3. Identify water hazards (i.e., upstream or downstream, current or tides)
4. Identify hazards directly related to the specific rescue
5. Demonstrate appropriate shore-based victim removal techniques

#### Content Modification

Block	Modification	Justification

**Cross Reference**

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-18</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-18</li></ul>	Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 23</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 19</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 19, 28</li></ul>

## 8-4: Implementing an Incident Action Plan

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 23.2.4

### Job Performance Requirement

Implement an incident action plan, as a member of a team, for the use of watercraft to support floodwater search and rescue operations, given an incident action plan and defined resources, so that operational objectives are achieved.

### Requisite Knowledge

1. Describe incident management techniques
2. Describe entry and exit procedures
3. Describe communications techniques
4. Describe boat operation techniques
5. Describe design limitations
6. Describe climactic conditions
7. Describe characteristics of floodwater events
8. Describe specific hazards presented by floodwater events in the potential rescue environment

### Requisite Skills

1. Implement access and egress procedures and communication with watercraft crew
2. Use emergency/safety equipment
3. Identify hazards
4. Operate within the rescue environment

### Content Modification

Block	Modification	Justification

### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-8</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-8</li></ul>	N/A	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 9</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 9</li></ul>



## 8-5: Implementing an Action Plan to Use Air Assets

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 23.2.5

### Job Performance Requirement

Implement an action plan for the use of air assets to support floodwater search and rescue operations, given an action plan, access to air assets, policies, and procedures used by the AHJ, so that floodwater-specific hazards are addressed; rescuers are deployed and recovered as required; both onboard and rescue operations conform with aircraft operational protocols and capabilities; communications are clear and concise; and the candidate is familiar with aircraft nomenclature, operational protocols, and design limitations.

### Requisite Knowledge

1. Describe means of contacting and accessing agencies with air assets
2. Describe the role of aircraft in the support of floodwater events
3. Describe the limitations of the available aircraft in the conditions associated with the rescue environment
4. Describe the role of the rescuer as part of an aviation team

### Requisite Skills

1. Implement a notification plan to request air assets
2. Develop a list of tactical objectives to be achieved by the aircraft
3. Communicate mission priorities with the aircrew or operator of the aircraft

### Content Modification

Block	Modification	Justification

### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-9</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-9</li></ul>	N/A	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 10</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 10</li></ul>

## 8-6: Limiting Exposure to Potentially Contaminated Floodwater

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 23.2.6

### Job Performance Requirement

Implement measures identified by the AHJ to limit exposure of victims and rescuers to potentially contaminated floodwater given a floodwater event, a flood rescue tool kit, protocols and practices identified by the AHJ, and access to the required engineering controls and decontamination tools so that the sources of potential contamination are identified and their effects and those of cross-contamination are minimized.

### Requisite Knowledge

1. List sources of contamination
2. Identify indicators of the presence of contaminants
3. Describe methods to limit exposure to contaminated water
4. Describe decontamination methods targeted at the potential specific contaminants

### Requisite Skills

1. Use related engineering controls and personal protective equipment (PPE)
2. Determine the practices that limit an individual's likelihood of exposure to contaminants
3. Implement methods for the removal of potential contaminants or to render them inert

### Content Modification

Block	Modification	Justification

### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-13</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-13</li></ul>	N/A	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 14</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 14</li></ul>

## 8-7: Identifying High Probability Victim Locations

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 23.2.7

### Job Performance Requirement

Identify locations at a floodwater search and rescue incident that have a high probability of containing victims, given a flood rescue scenario, and a tool kit, so that all accessible areas of the incident are surveyed and the victim locations are marked.

### Requisite Knowledge

1. **Identify** locations that are typically associated with areas of entrapment or refuge during floodwater events, including the interior of vehicles and attic spaces of structures, and human behavior during flood events

### Requisite Skills

1. Conduct a search
2. Mark victim locations
3. Use search marking systems
4. Use communications systems to share findings

### Content Modification

Block	Modification	Justification

### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-15</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-15</li></ul>	Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 12, 13, 14, 15, 16</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 16</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 16, 28</li></ul>

## 8-8: Managing Hazards Unique to the Terrain and Environment

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 23.2.8

### Job Performance Requirement

Manage the hazards unique to the terrain and environment when covered with floodwater or subject to differential pressures, given an incident consistent with a predicted floodwater environment and a floodwater search and rescue toolkit, so that all hazards are recognized and potential control measures are implemented.

### Requisite Knowledge

1. Describe specific hazards that could be present in a floodwater environment that are hidden or covered by water and hazard mitigation measures

### Requisite Skills

1. Survey the rescue environment for indicators of potential hazards
2. Avoid, isolate, or control identified hazards

### Content Modification

Block	Modification	Justification

### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-12</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-12</li></ul>	N/A	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• 13</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 13</li></ul>

## 8-9: Navigating Floodwater Covered Terrain

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 23.2.9

### Job Performance Requirement

Navigate terrain covered in floodwater, given a floodwater incident, a floodwater rescue tool kit, and practices identified by the AHJ, so that the positions of the rescuers are known, hazards are avoided, search progress is documented, and geographic baselines are established.

### Requisite Knowledge

1. Describe use and implementation of a GPS and alternate mapping techniques

### Requisite Skills

1. Establish a baseline location using a GPS or other improvised method from which to conduct a search or coordinate the movement of resources
2. Use methods to determine the location of submerged hazards and geographical features

### Content Modification

Block	Modification	Justification

### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-12</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-12</li></ul>	N/A	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 13</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 13</li></ul>

## 8-10: Terminating an Incident

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 23.2.10

### Job Performance Requirement

Terminate an incident, given PPE specific to the incident and a floodwater rescue tool kit, so that rescuers and bystanders are protected and accounted for during termination operations; scene documentation is performed; scene control is transferred to a responsible party; potential or existing hazards are communicated to that responsible party; debriefing, post-incident analysis, and critique are considered; and command is terminated.

### Requisite Knowledge

1. Describe PPE characteristics
2. Describe hazard and risk identification
3. Describe isolation techniques
4. Describe statutory requirements identifying responsible parties
5. Describe accountability system use
6. Describe reporting methods
7. Describe post-incident analysis techniques

### Requisite Skills

1. Select and use hazard-specific PPE
2. Decontaminate PPE
3. Use barrier protection techniques
4. Collect data
5. Use record-keeping/reporting protocols
6. Conduct post-incident analysis activities

### Content Modification

Block	Modification	Justification
RS5	Added "Use".	NFPA did not provide a verb.

**Cross Reference**

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-22</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-26</li></ul>	Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Skill 14</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 51</li></ul>	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 23, 24</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 27, 28</li></ul>

## 8-11: Performing a Non-entry Floodwater Rescue from a Rescue Platform

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 23.2.11

### Job Performance Requirement

Perform a nonentry floodwater rescue from a rescue platform such as a vessel, boat, watercraft, or other waterborne transportation aid, given an operator, a simulated flood environment, water rescue PPE, and a floodwater rescue tool kit, so that the assignment is completed, all performance parameters are achieved, movement is controlled, hazards are continually assessed, and any related distress signals are communicated.

### Requisite Knowledge

1. Describe limitations
2. Describe manufacturer's recommendations
3. Describe operation of the waterborne transportation device
4. Describe regulatory and applicable laws of safe water transportation according to the AHJ

### Requisite Skills

1. Enter and exit the waterborne transportation aid in a floodwater condition
2. Correct a capsized waterborne transportation aid
3. Apply packaging and movement techniques to water-bound victims

### Content Modification

Block	Modification	Justification

### Cross Reference

Course Plan	Training Record	Task Book
Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-19</li></ul>	Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 24</li></ul>	Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 20, 28</li></ul>



## Section 9: Technician

### 9-1: Performing an Entry Rescue

#### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 23.3.1

#### Job Performance Requirement

Perform an entry rescue in the floodwater environment, given an incident scenario, PPE, and floodwater rescue tool kit, so that rescue is accomplished, and adopted policies and safety procedures are followed.

#### Requisite Knowledge

1. Describe types and capabilities of PPE
2. Describe the effects of hydrodynamic forces on rescuers and victims
3. Describe hydrology and characteristics of water
4. Describe behaviors of water-bound victims
5. Describe water rescue rope-handling techniques
6. Describe incident-specific hazard identification
7. Describe criteria for selecting victim retrieval locations based on water environment and conditions
8. Describe hazards and limitations of shore-based rescue
9. Describe local policies/procedures for rescue team activation
10. Describe information on local water environments
11. Describe methods of breaching or defeating structural components of vehicle or structures

#### Requisite Skills

1. Select PPE specific to the water environment
2. Don PPE
3. Identify water hazards (i.e., upstream or downstream, current or tides)
4. Identify hazards directly related to the specific rescue
5. Demonstrate appropriate victim removal techniques

#### Content Modification

Block	Modification	Justification

**Cross Reference**

<b>Course Plan</b>	<b>Training Record</b>	<b>Task Book</b>
Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-22</li></ul>	Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Skill 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48</li></ul>	Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR23, 28</li></ul>

## 9-2: Developing an Incident Action Plan to Use Watercraft

### Authority

1. NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)
  - Paragraph 23.3.2

### Job Performance Requirement

Develop an incident action plan for the use of watercraft to support floodwater search and rescue operations, given a watercraft, operator(s), policies, and procedures used by the AHJ, so that floodwater-specific hazards are addressed; watercraft pre-deployment checks are completed; watercraft launch or recovery is achieved; rescuers are deployed and recovered; both onboard and rescue operations conform with watercraft operational protocols and capabilities; communications are clear and concise; and the candidate is familiar with watercraft nomenclature, operational protocols, design limitations, and launch/recovery site issues.

### Requisite Knowledge

1. Describe entry/exit procedures
2. Describe communications techniques
3. Describe boat operation techniques
4. Describe design limitations
5. Describe climactic conditions
6. Describe characteristics of floodwater events
7. Describe specific hazards presented by floodwater events in the potential rescue environment

### Requisite Skills

1. Implement access and egress procedures and communications with watercraft crew
2. Use emergency/safety equipment
3. Identify hazards
4. Operate within the rescue environment

### Content Modification

Block	Modification	Justification

**Cross Reference**

Course Plan	Training Record	Task Book
Water Rescue Awareness and Operations (2021) <ul style="list-style-type: none"><li>• Topic 2-8</li></ul> Water Rescue Technician (2021) <ul style="list-style-type: none"><li>• Topic 2-8</li></ul>	N/A	Water Rescue Awareness and Operations (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 9</li></ul> Water Rescue Technician (2021) Instructor Task Book <ul style="list-style-type: none"><li>• JPR 9</li></ul>