

EMERGENCY SUPPORT FUNCTION #9

URBAN SEARCH AND RESCUE

ESF COORDINATOR: **Fire Chief**

LEAD AGENCIES: **Fire Department**
 Police Department

SUPPORT AGENCIES: **EOC**

I. Introduction

A. Purpose

The purpose of this ESF #9 is to provide guidance and coordination for a variety of search & rescue operations within the City of Snoqualmie. Urban Search and Rescue (USAR) provides guidance for urban search and rescue operations during or following natural or manmade disasters. In addition, Search and Rescue guidance is given for lost people needing assistance from the King County Sheriff's Search and Rescue Unit.

B. Scope

This ESF addresses urban search and rescue operations. Operational activities include conducting physical search and rescue in collapsed buildings and structures; providing emergency medical care to trapped victims; assessment and control of gas, electricity, and hazardous materials; and evaluating and stabilizing damaged structures. Additional capabilities include trench-collapse rescue, confined-space rescue, high-angle rescue and swift-water rescue are covered.

State law encompasses both wildland and disaster search and rescue within the definition of search and rescue, RCW 38.52.010 Section 7. The Federal government separates the two and covers wildland search and rescue in the National Search and Rescue Plan and disaster search and rescue, specifically urban search and rescue, in the National Response Framework. Search and rescue in this ESF is defined as land and/or water search and rescue including both wildland and disaster search and rescue. Urban search and rescue will be coordinated by the Snoqualmie Fire Department and supported by the Snoqualmie Police Department and King County Sheriff's Search and Rescue Team.

C. Situation

1. A public emergency or other significant event may be of such severity and magnitude as to require City response and recovery assistance to field efforts to save lives and protect property.
2. In situations that entail structural collapse, large numbers of people may require rescue and medical care.
3. Because the mortality rate among trapped victims rises dramatically after 72 hours, US&R must be initiated without delay.
4. In the course of response, rescue personnel may encounter extensive damage to the infrastructure, such as buildings, roadways, public works, communications, and utilities. Such damage can create environmental safety and health hazards, such as downed power lines, unsafe drinking water, and unrefrigerated food.
5. Weather conditions such as temperature extremes, snow, rain, and high winds may pose additional hazards for emergency victims and rescue personnel.
6. In some circumstances, rescue personnel may be at risk from terrorism, civil disorder, or crime.
7. Facilities that survive with little or no structural damage may be rendered unusable or only partially usable because of a lack of utilities (power, water, sewer) or because staff are unable to report for duty as a result of personal injuries and/or damage/disruption of communications and transportation systems.

D. Assumption

1. The resources routinely available within the affected emergency area may be inadequate to conduct comprehensive US&R.
2. Many structural collapses may result from a natural disaster. They also may occur as the result of a significant manmade event.
3. At the time of a public emergency, there may be structural collapses elsewhere in the Snoqualmie and in the Puget Sound Region. These structural collapses will draw upon the same resources (engines or other tactical and support resources) that would be needed to support US&R and other emergency operations. It must be assumed that some US&R resources will become scarce, resulting in the disaster-related US&R operations competing for resources. Telephone communications may be interrupted.
4. Fire and EMS 800-MHz radio communication may be compromised, either totally or in part.
5. Access may be hampered by bridge failures, traffic, landslides, damaged road systems, air traffic restrictions, etc., making conventional travel to the incident location extremely difficult or impossible.

6. Efficient and effective mutual aid among the various local, state, and federal US&R teams requires the use of ICS together with compatible US&R equipment and communications.
7. Local residents, workers, and/or converging volunteers may initiate search and-rescue efforts but will usually lack specialized equipment and training
8. In situations where there are significant US&R shortfalls in the area, and a Presidential Declaration of disaster or emergency has been made, WA State EMD may request federal assistance from FEMA and Federal US&R resources through a Consequence Management Team.
9. Control of utilities, including Gas, Water, and Electricity, will be in collaboration with utility providers.

E. Policies

1. All activities within ESF # 9 – Urban Search and Rescue will be conducted in accordance with the National Incident Management System (NIMS) and the National Response Framework (NRF) and will utilize the Incident Command System (ICS).
2. The City of Snoqualmie Fire and Police Department (FD) will be responsible for activities under ESF #9 within the City.
3. As a signatory of the King County Regional Disaster Framework and through local mutual aid agreements, the City will make resources available to other jurisdictions through the Zone 1 Emergency Coordinator (Z1 EC) and the King County Emergency Coordination Center (KC ECC), whenever possible.
4. The legal definition of search and rescue is as follows: Search and Rescue (SAR) means the act of searching for, rescuing or recovering by means of ground, marine or air activity any person who becomes lost, injured or killed while outdoors or as a result of a natural or manmade disaster, including instances involving searches for downed aircraft when ground personnel are used. (RCW 38.52.010[7]).
5. The definition of USAR is as follows: Operational activities that include locating, extricating, and providing on-site medical treatment to victims trapped in collapsed structures. (NRP p. 73)
6. The Chief Fire Officer within the political subdivision shall be responsible for local USAR activities. Operation of USAR activities shall be in accordance with state and local operations plans adopted by the elected governing body of each local political subdivision. (RCW 38.52.400[1].
7. The City's Emergency Operations Center (EOC) will coordinate direct support to all USAR activities.

8. Heavy rescue operations will be a team effort of law enforcement, fire service, heavy rescue trained USAR volunteers and other required agencies under the Incident Commander (IC).
9. Control of utilities, including Gas, Water, and Electricity, will be in collaboration with appropriate utilities through the EOC.
10. SAR personnel and volunteers will provide basic emergency medical care to trapped victims within their appropriate training. Fire Department will provide Basic Life Support and coordinate Advance Life Support, as appropriate, to trapped victims.
11. When available, the Personnel Accountability System will be used as an incident site US&R accountability system to track and control the movement of Fire and EMS personnel.
12. The Snoqualmie Police Department will be the main liaison with Search and Rescue through the King County Sheriff's Office, Search and Rescue Unit. For Technical rescue as defined in Urban Search and Rescue (USAR), the Snoqualmie Fire Department will be the main liaison with other Fire Departments that offer that capability. If technical rescue capabilities are needed that are outside the scope of the police and fire staff on scene they will ask for the assistance of the appropriate trained staff through their respective mutual aid agreements.
13. The Chief Law Enforcement Officer within the political subdivision shall be responsible for local USAR activities. Operation of USAR activities shall be in accordance with state and local operations plans adopted by the elected governing body of each local political subdivision. (RCW 38.52.400[1]).

II. Definitions

Word	Definition
Urban Search and Rescue (USAR)	Operational activities that include locating, extricating, and providing on-site medical treatment to victims trapped in collapsed structures. (NRF)
Confined Space	Space large enough for a body to work with limited entry and egress. Not designed for continuous habitation.
High (low) Angle	Using rope and other associated rescue devices in above- and below grade situations.
Search and Rescue	Searching for missing people

Structural Collapse	Structures whose ability to remain self-supporting have been compromised.
Trench Rescue	Narrow excavation below the surface of the earth where the depth is greater than the width at the bottom.
Water Rescue	Locating and removing persons from moving or standing bodies of water (to include ice, salt and fresh) both surface and subsurface.

III. Concept of Operations

A. General

1. The Incident Command System (ICS) will be used by the FD for all field operations. The IC will report information and requests to the City's Emergency Operations Center (EOC).
2. At least one incident command post will be established for the coordination of all field operations. The unified command structure will be used when multiple departments/agencies are responding to an event.
3. People may become lost, injured or killed during disasters such as the collapse of buildings, requiring USAR within the City.
4. An emergency or disaster may cause building collapse, leaving persons in life-threatening situations requiring prompt USAR and medical care.
5. Communications will be through established channels. (See ESF #2 – Communications, Information System and Warning)
6. All assigned staff shall operate according to specific directives, department standard operating procedures (SOP) and by exercising reasonable personal judgment when unusual or unanticipated situations arise and command guidance is not available.
7. When an event requires a specific type or response mode, technical and subject matter expertise may be provided by an appropriate person(s) from a supporting agency with skills relevant to the type of event. The individual will advise and/or direct operations within the context of the Incident Command System structure.
8. Search and rescue teams are responsible for training and continuing education of their personnel.

B. Organization

1. The FD is the lead agency for the USAR activities within the City. The FD will request assistance through the EOC, if activated or directly from fire dispatch.
2. The PD is the lead agency for the SAR activities within the City. The PD will support the FD in USAR activities.
3. Specialty rescue teams including water, confined space, high angle, and heavy rescue are available through mutual aid within the area. Rescue personnel from outside the area may be requested by the Washington State Division of Emergency Management (WA EMD). The City has personnel from the PD, FD, and Public Works Department trained in some areas of specialty rescue.
4. Heavy search and rescue operations during or following natural or manmade disasters will be coordinated by the FD with support from the PD, and Public Works Department. The Building Department will provide technical support in the event of structural damage or collapse. Volunteers, outside agencies and the private sector may also be utilized during heavy rescue emergencies. Additional resources may be obtained through the KC ECC.
5. USAR volunteer units will be organized under the authority of the King County Sherriff's Office. Any volunteers not already attached to the King County Sheriff's Office Search and Rescue Unit must be registered as Volunteer Emergency Workers (VEW)s with the City's emergency management organization. VEWs must follow guidelines established by RCW 38.52 and WAC 118-04.
6. USAR volunteers and emergency workers should be trained in Basic ICS. This requirement may be waived during situations that require temporary registration of VEWs.
7. The primary resources for wilderness area SAR are the volunteers of the King County Search and Rescue Association and may be activated through the Police Department or the KC ECC. The Pierce County Volunteer Search and Rescue is an additional resource, which may be activated through King County Sheriff's Office.
8. Search and rescue operations for missing aircraft are the responsibility of the Washington Department of Transportation (DOT), Division of Aeronautics. The Police Department will be responsible for coordinating ground support for these operations upon request.
9. In the event of an incident of national significance, Federal USAR resources may be available at the request of the WA EMD.
10. Advanced rescue operations, including trench-collapse rescue, confined-space rescue, high-angle rescue, waterborne, and swift-water rescue, during or following natural or manmade disasters will be coordinated by

the FD with support from the PD, and Public Works Departments. The Building Department will provide technical support in the event of structural damage or collapse. Volunteers, as in Registered Volunteer Disaster Workers/CERT, outside agencies and the private sector may also be utilized during heavy rescue emergencies. Additional resources may be obtained through the KC ECC.

11. SAR volunteer units will be organized under the authority of the PD. Any volunteers not already affiliated with the King County Sheriff's Office Search and Rescue Unit must be registered as Volunteer Emergency Workers (VEWs) with the City's Office of Emergency Management. VEWs must follow guidelines established by RCW 38.52 and WAC 118-04.
12. SAR volunteers and emergency workers should be trained in Basic ICS. This requirement may be waived during situations that require temporary registration of VEWs.
13. The primary resources for wilderness area SAR are the volunteers of the King County Search and Rescue Association and may be activated through the Police Department or the KC ECC. The Snohomish County Volunteer Search and Rescue is an additional resource, which may be activated through King County Sheriff's Office. Wilderness include operations conducted in backcountry, remote, or underdeveloped or rural road-less areas that primarily require operations necessitating the use of specialized equipment to access these areas and may require responders traveling over land by alternate methods or aircraft. The City of Snoqualmie has very little land that meets the above wilderness definition.
14. Search and rescue operations for missing aircraft, including aeronautical search and rescue operations, are the responsibility of the Washington Department of Transportation (DOT), Division of Aeronautics. The Police Department will be responsible for coordinating ground support for these operations upon request.
15. In the event of an incident of national significance, Federal USAR resources may be available at the request of the WA EMD.
16. On-scene management of emergencies will follow the Incident Command System (ICS) in accordance with the (NIMS).
17. Any site designated by the Incident Commander (IC) may serve as any of the six ICS facilities: incident command post, staging area, base, camp, helibase or helispot, or in any other function capacity appropriate for the situation.

C. Incident Related Actions

1. Preparedness

- a. Prepare and maintain emergency operating procedures, resource inventories, personnel rosters and resource mobilization information necessary for implementation of the responsibilities of the lead agency,
- b. Maintain a list of City and Police Department assets that can be deployed during an emergency; refer to the NIMS Resource Typing in organizing these resources, if applicable,
- c. Assign and schedule sufficient personnel to implement identified tasks for an extended period of time,
- d. Ensure lead agency personnel are trained in their responsibilities and duties,
- e. Develop and implement emergency response strategies relating to USAR and SAR,
- f. Maintain liaison with support agencies,

2. Response

- a. Upon arriving at the incident scene, the Incident Commander may do the following:

Phase One - Assessment of the collapse. The area is scanned for possible victims (surface and/or buried). Evaluate the structure's stability. Shut off utilities.

Phase Two - Removal of all surface victims. Rescuers must be cautious as not to become victims themselves. Watch for secondary collapse.

Phase Three - Voids and accessible spaces searched and explored for viable victims. Only specially trained canines and trained personnel should be employed in this process.

Phase Four - Selected debris removal, using special tools and techniques, may be necessary after locating a victim. Gather information on the location of other possible victims.

Phase Five - General debris removal is conducted after all known victims have been removed.

USAR Operations - The US&R will employ the following strategy and tactics in an effort to rescue trapped victims, as equipment and resources allow:

- Physical void search (visual and vocal)

- Audible call out/knocking method
 - Use of fiber optics
 - Use of infrared and thermal imaging
 - Use of electronic listening devices
 - Use of search canines (dogs)
 - Coordinate operations in the Snoqualmie EOC and/or at other locations as required,
 - Develop, prioritize and implement strategies for the initial response to EOC requests.
 - Establish communications with appropriate field personnel to ensure readiness for timely response,
 - Participate in EOC briefings, development of Incident Action Plans and Situation Reports, and meetings,
 - Coordinate with support agencies, as needed, to support emergency activities,
 - Obtain other resources through the Statewide Emergency Management Mutual Aid and Assistance Agreement and/or the Regional Mutual Aid Agreements,
 - Coordinate with other jurisdictions to obtain resources and facilitate an effective emergency response among all participating agencies,
- b. Monitor and direct USAR and response activities to include prepositioning for response/relocation due to the potential impacts of the emergency situation.
- c. Inventory, update, and maintain a database of offers of services, goods, and monetary donations.
- d. Coordinate with the Logistic Section of the EOC serve as an informational group on the availability and coordination of resources from volunteers and donations.
- e. Pre-position response resources when it is apparent that USAR resources will be necessary. Relocate health and medical resources when it is apparent that they are endangered by the likely impacts of the emergency situation.

3. Recovery

See FD, PD, and King County Sherriff's Office Standard Operating Procedures.

4. Mitigation

Mitigation efforts for this ESF are covered in the City of Snoqualmie Hazard Mitigation Plan.

IV. RESPONSIBILITIES

A. Lead Agency

1. Fire Department

- a. Coordinate the City's USAR activities, including, pre-incident activities such as training, equipment purchases, and evaluation of operational readiness.
- b. Provide support to specialty rescue operations when appropriate.
- c. Develop policies and procedures for USAR activities within the City.
- d. Provide status reports to the City's EOC on USAR operations throughout the City.
- e. Coordinate logistical supports for USAR assets during field operations.
- f. Manage USAR team deployment to, employment in, and deployment from an affected area of the City.
- g. Communications shall be through normal established channels. (See ESF #2 – Information Systems, Communications and Warning)
- h. Provide emergency medical care and transportation of victims beyond initial collection sites.
- i. Provide on scene rescue and structural search in support of USAR activities.

2. Police Department

- a. Provide operational support for USAR activities.
- b. Provide trained staff and resources for USAR activities as appropriate.
- c. Provide, direct, and coordinate ESF #9 operations, as appropriate, and in general responsible for wide area search and water rescue/recovery operations.

- d. Coordinates the City's SAR activities with the King County Sheriff's Office SAR Unit and ensure that pre-incident activities such as training, equipment purchases, and evaluation of operational readiness occur.
- e. Provide support to specialty rescue operations when appropriate.
- f. Ensure that SAR has policies and procedures for SAR activities within the City.
- g. Provides status reports to the City's EOC on SAR operations throughout the City.
- h. Coordinates logistical supports for SAR assets during field operations.
- i. Manages SAR team deployment to, employment in, and deployment from an affected area of the City.
- j. Communications shall be through normal established channels. (See ESF #2 – Information Systems, Communications and Warning)

B. Support Agency

1. Emergency Operations Center

- a. Coordinate support for USAR/SAR activities within the City.
- b. Provide support for USAR/SAR activities by coordinating additional resources and activating the City's EOC when appropriate.
- c. Provide for the registration and coordination of emergency workers.
- d. Submit and coordinate requests for assistance to the Z1 EC, KC ECC, and/or the WA EMD.
- e. Request County, State and Federal resources, as necessary.

2. Public Works

- a. Provide trained staff and resources for USAR activities as appropriate.
- b. Provide trained staff and resources for USAR/SAR activities as appropriate.
- c. Provide equipment and other major resources needed to provide access to and remove debris from entrapment sites, and clear roadways or other areas in support of emergency response actions.

3. Building Official\Community Development

- a. Provide technical expertise in the evaluation of damaged structures.
- b. Provide resources for USAR activities when requested.

4. Zone 1 Emergency Coordinator

- a. Coordinate requests for resources from jurisdictions within Zone 1.
- b. Facilitate communication with local jurisdictions, KC ECC, WA EMD, and other organizations, as needed.

5. King County Emergency Coordination Center

- a. Coordinate requests for resources from Z1 ECC and/or jurisdictions within King County to the WA EMD.
- b. Facilitate communication with Z1 ECC, WA EMD, and local jurisdictions, as needed.

6. Washington State Emergency Management Division

- a. Alert appropriate state agencies of the possible requirement to assist with USAR activities.
- b. Coordinate incoming resources for deployment within the State, as needed.

7. Utilities (Power, Water, Gas, etc)

- a. Coordinate with Snoqualmie EOC to address search and rescue problems due to leaking natural gas, downed power lines, water main breaks, or other utility infrastructure issues.

IV. Appendices

- A. WAC 118.04.120 Urban Search and Rescue Volunteer Emergency Workers

V. REFERENCES

- A. National Incident Management System (NIMS)
- B. National Response Framework (NRF)

- C. RCW 38.52 and WAC 118.04
- D. Washington State Comprehensive Emergency Management Plan

APPENDIX A
WAC 118.04.120 SEARCH AND RESCUE
EMERGENCY WORKERS

WAC 118.04.120 - Classes and qualifications of search and rescue emergency workers.

There are three classes of search and rescue emergency workers: Novice, support personnel, and field personnel. The basic qualifications listed below define each of the three classes. Local requirements may include more extensive and detailed qualifications to meet local needs. Authorized officials also may require search and rescue emergency workers to demonstrate proficiency in the skills required to carry out their assignments.

Emergency workers who are not qualified for specific search and rescue duties shall not be assigned to such duties unless specifically directed by an authorized official and then only when under the direct supervision and control of personnel who are qualified for that specific assignment.

(1) The following are basic qualifications for novice search and rescue emergency workers without specific duties including those personnel in a training status. Novice personnel shall:

(a) Be physically and mentally fit for the position assigned.

(b) Possess sufficient knowledge of search and rescue skills and techniques to fulfill their emergency assignment.

(2) The following are basic qualifications for support search and rescue emergency workers. Support-qualified personnel shall:

(a) Be physically and mentally fit for the position assigned.

(b) Possess knowledge of the skills required of field search and rescue emergency workers but are not required to have the field tested experience nor the physical capabilities of field-qualified personnel.

(c) Possess knowledge in first aid for the control of bleeding, cardiopulmonary resuscitation, bone immobilization, protection from the elements, and protection from exposure to blood borne pathogens.

(d) Possess basic knowledge of helicopter operations. Successful completion of a helicopter operations basic course approved by the emergency management division satisfies this requirement.

(e) If duties require involvement in helicopter operations, possess demonstrated

knowledge and proficiency in helicopter operations. Successful completion of a helicopter operations intermediate and, as applicable, advanced course, approved by the emergency management division satisfies this requirement.

(3) The following are basic qualifications for field search and rescue emergency workers. Field-qualified personnel shall:

- (a) Be physically and mentally fit for the position assigned.
- (b) Possess knowledge of and demonstrated proficiency in survival techniques and outdoor living.
- (c) Possess knowledge in first aid for the control of bleeding, cardiopulmonary resuscitation, bone immobilization, protection from the elements, and protection from exposure to blood borne pathogens.
- (d) Possess knowledge in wilderness navigation including map, compass, and other navigation methods as appropriate.
- (e) Possess basic knowledge of helicopter operations. Successful completion of a helicopter operations basic course approved by the emergency management division will satisfy this requirement.
- (f) Possess knowledge of search and rescue techniques.
- (g) Possess knowledge of crime scene recognition, evidence recognition, human remains recognition and the provisions of RCW [68.50.010](#), [68.50.020](#), and [68.50.050](#).
- (h) If duties require involvement in helicopter operations, possess demonstrated knowledge and proficiency in helicopter operations. Successful completion of a helicopter operations intermediate, and, as applicable, advanced course approved by the emergency management division, satisfies this requirement.