King County

EVACUATION TEMPLATE OVERVIEW TEXT

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Contents

1 Introduction

The purpose of this template is to aid a jurisdiction in preparing an evacuation plan. It will guide its user through the required steps to collect and analyze the information necessary for an actionable plan. It is not intended to be an all-inclusive evacuation plan instruction manual. It is recognized that each jurisdiction has unique features and many already have existing plans to deal with particular threats specific to its locale.

The template presents evacuation planning concepts that are applicable across all scales and scopes of evacuations, regardless of the type of incident that causes the evacuation. By providing information about planning techniques, strategies and tactics to better prepare jurisdictions to respond effectively to evacuation scenarios, the template aids officials in determining what information should be considered and included when creating an evacuation plan.

The King County OEM through its consultant, URS Corporation, hosts a discussion forum via a secure server whereby individual jurisdictional planners can post questions to consultant planners as well as KC and State OEM management. The web link is:

http://www.urscorpseattle.com/forum1/

2 How to Use the Template

The Template consists of four components that will lead officials through the evacuation planning process: overview text, template outline, planning checklists, and the resources text.

Evacuation Overview Text – Provides a high-level overview of the general concepts associated with any type of evacuation plan. This text allows a jurisdiction to see what considerations should be made when preparing an evacuation plan.

Evacuation Template Outline - Provides an annotated outline to guide planners in the preparation of a jurisdiction-specific plan, by identifying the sections and content to be included. To ensure that plan authors can make full use of the guidance provided in the template when using the template, components of the template are cross-referenced with the relevant sections of the overview text and planning checklists.

Evacuation Planning Checklists – Helps identify the specific steps to be taken when preparing an evacuation plan. The items in the list help guide planning efforts towards determining agencies that should be involved in the planning process, the information that needs to be compiled, and the decisions that need to be made regarding specific elements of the evacuation plan. Addressing these items will greatly assist officials in writing an actionable evacuation plan.

Evacuation Resources - Provides evacuation planners and managers with an overview of the types of resources needed to conduct an evacuation effectively.

This template presents one possible outline for a comprehensive, stand-alone evacuation annex. This outline, however, may not be ideal for all jurisdictions, depending on local characteristics and existing plans. The template user should feel free to modify the outline (and the resulting plan) as he/she sees fit to best serve the needs of the jurisdiction. The evacuation plan, for example, may be prepared as an annex to an overarching emergency management plan; in this case many components listed in the outline are likely to be included in the higher-level plan and could be omitted from the evacuation plan.

The template and checklists correlate closely with each other: there is a specific checklist for each section of the template, and planners can use each checklist to determine and collect all the information to include in the corresponding section of the plan. The overview text is intended to serve as an informational reference to the template and checklists; although the text does not always follow the same organization as the template, each template section and checklist is cross-referenced to relevant sections of the overview text.

Much of the data, strategies, and operational elements needed to complete the evacuation plan may already exist in previously-written emergency management plans. The author of the evacuation plan should review existing plans not only to collect plan elements, but also to ensure consistency between the existing plans and the new evacuation plan.

3 Purpose of the Evacuation Plan

Evacuations take place when lives are put in danger due to a disaster or emergency. They are the organized, phased and supervised withdrawal of civilians from dangerous areas and occur under many different circumstances. A jurisdiction may need to evacuate one block of office buildings (water main break), a neighborhood (forest fire), a major portion of the downtown area (terrorist attack), or even an entire city (earthquake). Evacuations are often multi-jurisdictional activities, making successful evacuations challenging to execute due to the level of coordination required among agencies and jurisdictions.

Disasters/emergencies can occur with little or no warning. Most evacuations result from natural disasters, particularly wildfire threats to populated areas; technical disasters, including fixed site and transportation-related industrial accidents; and malevolent acts, including terrorist attacks. Combine these larger-scale evacuations with much more frequent small-scale ones, and it becomes clear that evacuations occur on an almost daily basis.

An evacuation plan will help streamline the evacuation process, particularly in little or no-notice situations, by providing an organized framework for the activities involved in coordinating and conducting an evacuation. A good plan will identify the critical elements of an evacuation:

- Agencies involved, and their respective roles and responsibilities
- Command structure elements and protocols
- Operational strategies and tactics

- Communications protocols
- Resources and assets used to support operations

By addressing these issues, a good plan will enable agencies to prepare themselves for the roles they must undertake during an evacuation, and facilitate the overall interaction and mutual support among the many agencies, facilities, systems, and assets needed to conduct an evacuation.

4 Types of Evacuations

Local and state agencies routinely handle evacuations after many incidents, including man-made, technological hazards, and naturally-occurring incidents. Incidents that cause evacuations differ in size and scope, with varying degrees of warning. There are instances, such as a hurricane, where a jurisdiction knows it will need to evacuate some subset of its population, in advance of the incident occurring. Other times, an incident such as an earthquake might strike with no warning at all. A fire might cause an evacuation of a city block, while an earthquake might affect an entire city. There are even other situations (hazardous materials spill) where sheltering in place is the safest and most efficient course of action.

An effective evacuation plan should adopt an all-hazards approach to preparing for an incident. An all-hazards approach entails developing a response and recovery plan that is functional regardless of the incident that causes the evacuation; it is designed to achieve the core mission of preserving life safety, rather than focusing on responding to the particular type of incident. This provides the flexibility required to respond to any type of incident, including terrorist attacks, man-made accidental disasters, and natural disasters, regardless of size or location. This section describes the types of evacuations that can occur and their characteristics.

4.1 Advance Notice

With an advance-notice evacuation, information becomes available about a potential incident and the factors that may require an evacuation in advance of the actual incident occurring. Usually there is a lead time of 24 – 72 hours. This gives evacuation personnel enough time to establish alternate evacuation strategies based upon the expected impacts of the disaster. Examples of advance-notice incidents that might lead to an evacuation include:

- Hurricanes
- Wildfires

With an advance-notice evacuation, decision makers have time to collect the necessary information to determine whether an evacuation should be ordered and if so, the best way to carry it out.

4.2 No-Notice

No-notice evacuations have little or no advance warning, which create particularly challenging circumstances for carrying out an evacuation. Examples of incidents that might cause a no-notice evacuation include:

- Hazardous materials spill due to a vehicular or train accident
- Explosion at a chemical plant
- Terrorist attack
- Flash flood
- Earthquake

With a no-notice incident, only partial information about the incident is arriving, if at all, at the same time in which decisions need to be made. This means decision makers must be prepared to act on limited information when deciding whether or not to issue an evacuation order.

In advance-notice evacuations, jurisdictions make decisions regarding the implementation of an evacuation to prevent lives from being put in imminent danger; in a no-notice scenario, citizens are usually already at risk. Decision makers must be willing to make decisions with whatever information is available at the time; they will have little or no time to wait for additional information because any delay will likely have a significant impact on the safety of their citizens.

One of the best ways to counter the effects of a no-notice evacuation is to conduct preplanning. Focusing on what can be done ahead of time to prepare for an evacuation will mitigate the effects of having extremely limited Incident Analysis, Warning, and Preparation to Move phases, which happens with any type of no-notice incident.

4.3 Localized

Localized incidents are typically man-made, whether accidental or intentional and usually result in localized evacuations. Examples include:

- Structure fires
- Gas leaks
- Chemical spills
- Transportation accidents
- Terrorist attacks involving conventional explosives

Evacuations from a localized area are, by nature, smaller in scope. This may be limited to the population of a single building (in which case centralized coordination of an

evacuation is likely unnecessary), or range up to the evacuation of an area of 10 - 15 city blocks. While it is possible to have a localized incident affect a large number of people (concentrated areas of high-rise buildings), at-risk populations are usually smaller, and evacuees typically need to be moved only a short distance to be safeguarded against the hazard. Evacuation routes, assembly areas for evacuees, and sheltering facilities are also smaller and less resource-intensive than in a wide-scale evacuation.

The types of localized incidents that precipitate an evacuation will almost always involve on-scene activity by emergency response personnel, separate from any efforts underway to execute an evacuation. Whether extinguishing a fire or containing a hazardous leak or spill, personnel from fire, law enforcement and other response agencies will be present to respond to the incident. This means first responders will often have to gain entry into the site from which citizens are being evacuated. The need of first responders to access the site with vehicles and equipment, and to move freely as they operate on-site to eliminate the hazard, may complicate or interfere with the management of the evacuation. Designation of routes for emergency response vehicles could help alleviate any delay that might be experienced during the evacuation response.

4.4 Wide-Scale

Larger incidents may affect an entire city or region. These can be either natural or man-made and have a variety of primary, and often secondary, consequences. Examples of wide-scale incidents that would likely require a sizeable evacuation include:

- Earthquakes
- Tsunamis
- Chemical releases that result in a large moving toxic cloud (plume),
- Explosions at specialized sites such as liquid natural gas facilities,
- Terrorist attacks using unconventional explosives (e.g., radiological dispersal devices)

Evacuations that result from such incidents will likely involve a tremendous number of evacuees, possibly from more than one jurisdiction, who need to move from the at-risk area. This will require intensive efforts on the part of emergency management and evacuation personnel to coordinate, transport and shelter the affected populations, and will place greater demands on staff and resources. If the precipitating incident occurs within a no-notice context, some local agencies may not be adequately prepared with sufficient resources in place to address this type of situation. Moreover, the emergency response staff may be among those directly affected by the incident and may be unavailable to assume their duties.

With wide-scale incidents, first responders will likely be spread out through the entire affected area. As such, even though first responders are likely to be working at one or more critical locations and their localized activity should not directly hinder the corresponding wide-scale evacuation, they may not be available to help support the actual

evacuation effort. This element will vary greatly, depending on the nature and severity of the precipitating incident.

Large incidents that precipitate a wide-scale evacuation typically cause widespread damage and are therefore more likely to compromise critical infrastructure in a manner that hinders evacuation movement. Particular elements of the transportation system, such as bridges, tunnels, and highway and subway systems are vulnerable to damage from seismic and explosive incidents, rendering them unsafe for use. If these sites are located on evacuation routes, those routes may be unavailable, and alternatives will need to be identified using preplanning data and incident-specific information. In cases where the transportation network is severely restricted by such damage, sheltering in place may be a safer short-term alternative for at-risk populations until evacuation routes can be restored for use.

4.5 Phased

A phased evacuation involves evacuating smaller zones of the at-risk region sequentially to minimize traffic congestion. A phased evacuation is not always easy to implement because many people, due to an acute sense of personal risk, will not wait for their turn to evacuate, even if it would be safer or more effective for them to do so. Communication with the public becomes particularly essential during a phased evacuation.

4.6 Pedestrian-Only

There may be scenarios when, due to the nature of the incident, an evacuation should be limited only to pedestrian movement, at least initially. This could involve instances when the threat is dire and there is no time to allow for traffic management or to employ public transit options. Pedestrian travel may end up being the safest and most effective evacuation mode. After a no-notice incident occurs, movement by foot will be the first choice for many evacuees. Even once an incident command is established to manage the incident, pedestrian movement could be the best and most efficient method of evacuation, at least from those areas closest to the site of the incident.

4.7 Shelter-in-Place

4.7.1 *Consideration of Contaminants*

Some incidents that lead to an evacuation generate associated hazards that can contaminate people, vehicles and structures. The nature of the contaminants will vary with the nature of the incident and its cause, and different contaminants may require different approaches to decontamination and treatment. Of particular concern to emergency response personnel are terrorist attacks that involve chemical, biological, radiological, nuclear, or explosive (CBRNE) devices. Some of these attacks are designed to cause immediate casualties and damage as well as to disperse harmful substances that will continue to negatively affect victims and prevent the use of the affected zone.

Since the presence of contaminants in an at-risk area will greatly complicate the execution of an evacuation, a jurisdiction's evacuation plan will need to take into account procedures and equipment for situations when contaminants are present. Responders may not be able to enter the area without subjecting themselves to an unreasonable level of risk, or may need to wear and use specialized personal protective equipment (PPE) to protect themselves. As a result current HAZMAT procedures should be incorporated into the evacuation plan.

In addition to the effects on first responders, citizens may also be limited in their ability to move through the affected area safely. They may have no means of leaving their locations without becoming contaminated. In such scenarios, sheltering in place must be considered as a potential short-term strategy for minimizing casualties, if the situation and available resources are appropriate (see *Shelter-in-Place* below).

Evacuees exposed to harmful substances may need to be isolated from unaffected locations and populations until being decontaminated, in order to prevent the spread of contamination. Decontamination could necessitate specialized screening and cleaning resources and expertise, and may be required before citizens are transported to advanced care and sheltering facilities. In rare instances when the nature of the contaminant is so severe and potentially deadly that quarantine is the most effective way to stop the spread of the contaminant, a jurisdiction must be aware of the legal procedures and ramifications of issuing and enforcing quarantine.

4.7.2 *Shelter-in-Place Strategy*

The purpose of an evacuation is to remove civilians from dangerous areas in a safe, orderly and supervised manner. There are certain instances, however, when evacuating after an incident is more dangerous to citizens and puts them at a greater risk. The nature and scope of the incident may generate hazards that pose a serious threat to the at-risk population if an evacuation occurred. Examples of such risks are compromised transportation infrastructure, impacts of aftershocks, the presence of toxic or radiological contaminants (particularly a plume), impending weather conditions that might cause toxic substances to occur, and secondary fires and explosions. In such situations, having at-risk populations shelter in place with basic protective measures may be a more viable and safer option.

If the present location affords adequate protection against the particular incident, emergency managers should consider having people shelter-in-place to reduce the number of citizens who become part of an evacuation stream or who need to be moved by public transportation. While the primary goal of any response action is to save lives, the incident's impact on the ability of the transportation network to move people quickly and efficiently should be weighed against the risks of remaining in place in the short term.

5 Evacuation Phases

Listed below are the six phases of an evacuation. The phases are summarized here to provide readers a clear, high-level understanding of the types of activities an effective evacuation plan will address - before, during, and after an evacuation. The evacuation

plan templates, as well as the relevant planning checklists, in this template are organized around these six phases.

Incident Analysis Phase – The Incident Analysis Phase is when information becomes available about an incident that has occurred or is likely to occur. It outlines the procedures used by local officials to collect data from the on-going disaster incident to determine whether an evacuation should occur. If a no-notice incident occurs there will usually be a delay in information flow to decision makers and evacuation orders might have to be issued before a full, complete picture of the situation is available. Since evacuations are often times multi-jurisdictional, this phase will determine what type command structure to adopt (Incident Command, Unified Command, Area Command, etc.) and how elected officials will provide approval. Evacuation personnel will analyze additional aspects of the situation:

- Nature of the hazard (magnitude, direction, speed, duration, etc.)
- Population characteristics (numbers, special needs, transportation required, etc.)
- Local geography and facilities at risk
- Assets available to support an evacuation

Information gathered during this phase should be used when making a determination of whether an evacuation order should be issued.

Warning Phase - This phase involves notifying all of the relevant agencies and the general population that an evacuation will be or has been declared. Relevant issues include the various types of warning technologies, verification procedures, authorization, as well as which jurisdictions/agencies/organizations should be warned and the composition of those warning messages. Warnings should take place before an incident occurs, if possible. In addition, warning messages that provide updated information should occur at regular intervals throughout an incident's duration.

Preparation to Move Phase – The Preparation to Move Phase focuses on coordination with other jurisdictions; confirming what is permissible under a jurisdiction's legal charter; determination of evacuation routes; whether support services, assembly points, shelters and reception areas are required; as well as coordination of public information and elected officials.

Movement & En-Route Support – This phase includes operational activities that support the actual movement of the affected population from the unsafe area to the reception and support safe area. A determination should be made about where a law enforcement presence is required, what assets

Reception and Support – Reception and Support focuses on receiving evacuees at the reception point; triage; life support services to include shelter, food services, sanitation, public information/education, medical and mental health services, pet and service animal support, and care for livestock.

Return Phase – The Return Phase includes planning steps for a controlled, safe return by the evacuees to the previously evacuated area or onward movement to a new location.

6 Evacuation Roles

Regardless of the stage of the evacuation operation there are four roles a jurisdiction may play while involved in an evacuation effort. These roles, as well as their responsibilities and main areas of focus, are outlined in the below chart.

Role	Responsibility	Main Areas of Focus
Evacuating Jurisdiction	A jurisdiction that evacuates any subset of its population from a dangerous area to a safer location.	• Emergency response • Traffic management • Coordination and communication
Receiving Jurisdiction	A jurisdiction that receives and shelters evacuees that have evacuated out of a dangerous area.	• Traffic management • Shelter requirements • Animals and special needs populations • Coordination and communication
Pass-Through Jurisdiction	A jurisdiction in which evacuees from another jurisdiction pass through on their way to their final destination.	• Traffic management • Coordination and communication
Supporting Jurisdiction	A jurisdiction that provides physical resources (support staff/equipment) to an evacuating, passing, or receiving jurisdiction. Supporting jurisdictions do not interact directly with the evacuees.	• Resource management • Mutual aid agreements • Coordination and communication

It is possible for a jurisdiction to hold more than one role at the same time. For example, a pass through jurisdiction would also be a supporting jurisdiction if it supplied cots for use in one of the shelters.

7 Scope

The State of Washington, under most circumstances, has no authority to mandate or enforce evacuations. This means that evacuation management will happen at the local

level. In order to successfully respond to incidents and the resulting evacuations, jurisdictions must develop their own comprehensive evacuation plans.

7.1 Pre-Planning

Once an incident occurs and it is determined that an evacuation is necessary, quick access to certain information will be vital to decision makers and response personnel choosing the best course of action. Particularly with no-notice incidents, there will be minimal time for an assessment to take place before decision makers have to decide if and how to implement an evacuation. For any entity that will have a role in an evacuation, preplanning is a necessary undertaking.

Preplanning refers to planning efforts taken by a jurisdiction or agency before they are aware that they need the information to make an operational decision. Preplanning can be used to gather relevant data on many facets of an evacuation, ranging from evacuee statistics to likely hazards to information specific to potential evacuation routes. For example it is considered preplanning if transportation officials determine the capacity, safety and potential chokepoints of their transportation infrastructure so that if an incident were to occur the information would be on hand to aid decision makers.

Evacuation decisions will likely rely heavily on the estimates determined during preplanning activities, using the limited real-time information available for guidance. It becomes an essential process in preparing a jurisdiction to respond to an evacuation. As such, one of the main focuses of a jurisdiction's evacuation plan should be on preparedness and planning activities.

7.2 Geographic Scope

One of the first steps in creating an evacuation plan is to determine the geographic scope of the plan. This helps to identify who should be involved in the planning process and what issues are to be addressed in the plan. This entails four main considerations:

- Legal jurisdictions covered by the plan
    - If an evacuation occurs in your jurisdiction, can aspects of the evacuation plan be legally activated and used as part of the evacuation response?
- Geographically distinct areas of note covered by the plan
    - Consider location of specific hazards (e.g., floodplains, nuclear power plants, etc.)
    - Are there some areas that only have a single point of access (e.g., an island with a single bridge)?
- Geographic areas of strategic concern outside the plan's legal jurisdiction

- Which jurisdiction(s) outside the legal scope of the evacuation plan might play an integral role if an evacuation of your jurisdiction were to occur?

- Distinct zones within your jurisdiction

  - How is your jurisdiction divided? Are some areas mainly residential? Industrial? Commercial? Known for having a high population of students? Tourists?

7.3 Parties Involved in Planning and Conducting an Evacuation

Jurisdictions need to recognize that conducting an evacuation involves numerous parties. Evacuation planning should not be conducted in isolation; a plan for a mass evacuation from a catastrophic incident should be a collaborative effort among all relevant agencies. The process of working with partner agencies to assess risks, develop strategies and contingencies, and exercise and test plans is an important part of the process. It builds effective working relationships among agencies and managers, shares the knowledge and expertise across many disciplines, and resolves potential areas of confusion.

Coordination of evacuation activities between neighboring jurisdictions is important as well and will help lead to a successful evacuation effort. Mutual planning (or plan reviews) among all involved jurisdictions helps to ensure that they have realistic expectations of each other's capabilities. This could be in terms of the number of a specific resource an agency has access to, the number of evacuees a jurisdiction is able to shelter, or the response time for emergency response personnel from another jurisdiction to arrive on-scene. It is counterproductive if one jurisdiction's evacuation plan calls for sending all evacuees into another jurisdiction, only to find out during the evacuation effort that the shelter being utilized can handle half of the population originally assumed. Working together during the planning process will help alleviate discrepancies between expectations and actual abilities.

This coordination becomes extremely important when designating evacuation routes. If state and local plans have provisions for contraflow operations, a system needs to be identified in their plans for communicating and coordinating contraflow operations with neighboring jurisdictions.

When identifying those entities that should be involved in the evacuation planning process, a jurisdiction should consider including the following entities in any planning, training, or exercise efforts:

- Emergency management and first responder agencies
- Transportation and transit providers
- Mass Care Planners
- Executive branch of government (e.g., mayor, county executive, governor)

- Neighboring jurisdictions
- Federal government agencies
- Organizations and private-sector companies that may support an evacuation

Having the appropriate entities involved in the evacuation planning process from the beginning will contribute to a smoother evacuation should the plan require activation because all involved parties will be familiar with the process.

7.4 Coordination with Other Plans and Guidance

In addition to identifying the parties that should be involved in planning and conducting an evacuation, it is also important to coordinate the evacuation plan with other relevant plans and guidance. Emergency management protocols for a region are typically spread among multiple plans, and these plans are often organized differently and have varied levels of specificity. This makes it difficult for planners to assemble the relevant evacuation elements from the various agencies and to assess whether the plans work together, in coordination those from other jurisdictions.

Plans for a response to a complex, multi-jurisdictional disaster require coordination and integration of plans with partner federal, state, and local agencies as well as non-governmental organizations and the private sector. The types of plans to consider include, but are not limited to:

- Jurisdictions Hazard Assessment and Vulnerability Analysis (HAVA)
- Comprehensive Emergency Management Plan (CEMP)
- Jurisdictions Hazard Mitigation Plan
- Continuity of operations plan (COOP)
- Continuity of government plan (COG)
- Supporting plans
- Neighboring jurisdictions' plans
- County and State plans
- National guidelines (National Incident Management System (NIMS), National Response Framework (NRF))

7.5 Potential Evacuation Populations

Evacuation planners can use readily available demographics data to answer many of the questions posed in this section. Federal census data provide a detailed overview regarding population sizes and distribution, as well as other statistics such as income level, work

location and car ownership. In addition to jurisdiction planning departments, evacuation planners can also work with specialized organizations such as hospitals, medical associations, public service organizations, school districts, universities and tourism bureaus to identify relevant population segments, their characteristics, and the types of assistance they will need.

Note that much of this data may already have been compiled for use in previously-written plans. Authors are advised to review existing plans for available information before undertaking a new data collection effort.

Once data has been collected, GIS can be used to analyze available data, including highlighting key aspects of the potential evacuation populations. Sites such as population centers, critical facilities and special needs population locations can be mapped in juxtaposition to the transportation network, travel corridors, and sheltering locations.

7.5.1 *Forecasting Evacuee Statistics*

The most critical element of an evacuation is the population of evacuees. All activities and efforts should be focused on moving these people from the at-risk area to places of safety. The size and characteristics of this population are significant factors in determining how an evacuation will be executed.

Evacuation planners must have an understanding of the people who are likely to be involved in an evacuation before they can make key decisions about transportation modes, route selections, sheltering destinations, and the many other elements of an evacuation effort designed to support the safe and efficient movement of the evacuees. Most large cities have identifiable population centers (both residential populations and daytime work populations) that will generate high numbers of evacuees if placed at risk after an incident.

As part of the pre-planning process, jurisdictions may find it helpful to take data gathered for its jurisdiction and to organize the findings by its unique geographic zones. Critical factors include:

- **Number of evacuees**
  - How many people are likely to be involved in the evacuation?
    - Are there differences in the number of potential evacuees when daytime, nighttime, and seasonal populations are taken into effect?
- **Location and distribution of evacuees**
  - How are people distributed within the at-risk area?
    - Are there concentrations of people (residents/employees) in particular locations (e.g., large employment centers) that should be anticipated as part of the plan?
    - What are the likely areas of traffic congestion that correspond to the different types of high population densities?
- **Modes of transportation available to evacuees**

- How are evacuees likely to travel during an evacuation?
  - What percentage of evacuees have personal cars available to them? Private vehicles may contribute to traffic congestion.
  - Are there significant numbers of car owners who commute by transit and therefore may rely on public transportation?
  - How many people are likely to use alternative modes such as bicycles and walking during an evacuation?

- **Evacuees' likely desired direction(s) of travel**
  - In what directions will significant numbers of evacuees want to travel during an evacuation? Evacuees are likely to travel towards certain destinations – their homes, work sites, and children's schools. Consider the aggregate numbers of evacuees by travel direction.

- **Mobility restrictions**
  - What percentage of evacuees will face mobility challenges? This could be due to evacuees not having access to personal transportation, having limited financial resources, or being unfamiliar with the area and the road network.

- **Special populations who may require specialized or additional assistance**
  - What population groups will need special assistance during an evacuation? What types of assistance might be required? Is assistance only required for the actual evacuation or at shelters as well? Consider particular population concentrations of special needs populations.

- **Populations in known areas of high risk**
  - Are there populations that live/work in close relation to specific sites or facilities that pose a potential hazard that may be responsible for generating an evacuation?

7.5.2 *Special Needs Populations*

Special needs populations, including vulnerable populations, are defined as those individuals who may require additional time, assistance, or attention to evacuate. Below is a list of special needs population categories that may require particular attention in your jurisdiction:

- Restricted mobility (wheelchair/walking aid);
- Patients/residents of hospitals, nursing homes, and assisted care facilities;
- Hearing-, language- or vision-impaired;
- Non-English speaking persons;
- Incarcerated persons (e.g., county jail, detention cells in courthouses);
- Transient populations (e.g., tourists, seasonal workers, homeless)

- Students and children (e.g., colleges, schools, and childcare centers)
- Tourists and other people not familiar with the region
- Animals (farm animals; kennels; veterinary hospitals; zoos; theme parks; pet stores; university laboratories)

Areas with high concentrations of special needs populations (e.g., hospitals or homeless shelters) should be pre-identified and given particular attention during the planning process because they may require more resources and assistance than the general population during an evacuation. The type of assistance required will vary for each category of special needs population. Residents of a nursing home are likely to require medical assistance, including paratransit (vehicles equipped to serve riders in wheelchairs or with other special needs), while non-English speaking persons may require translators. Security issues surrounding transport and destinations would be a concern for incarcerated residents, which might result in a decision to shelter-in-place, while tourists may just require more detailed information about the area and evacuation procedures due to their unfamiliarity with the area. Regardless of the special needs category, all will require additional assistance and resources during each stage of an evacuation.

7.5.3 *Populations in High-Risk Areas*

Locations of known areas of high risk can be mapped against population distributions to determine the potential number of evacuees resulting from an incident in a given location. If an incident occurs at one of these sites, it may generate a hazard of significant size and severity to warrant an evacuation. Such facilities can be identified through existing community hazard and vulnerability assessment results. Those of particular concern should be analyzed further to determine the likelihood and consequences of a mishap. Examples of such sites include:

- Volcanoes
- Power plants
- Fuel processing/storage sites
- Laboratories or other research facilities working with hazardous materials
- Biohazard laboratories
- Manufacturing plants with large quantities of on-site chemicals

Preplanning can be used to help determine specific evacuation strategies should one of the pre-identified incident ever occur. Based on the location and type of hazard, a jurisdiction can prioritize which communities should evacuate first, and have pre-identified decision points and triggers for declaring an evacuation.

Evacuation planners should consider using local staff to identify locations of “likely” evacuations. They can then map significant evacuee populations against the proposed evacuation transportation and sheltering network to determine projected demand levels on their chosen travel routes and corridors. Planners can then use demographics data and GIS tools to develop projections of the at-risk population(s), based on the nature of the facility and the presumed hazard. Information gathered under *Forecasting Evacuee*

Statistics will contribute to a better understanding of how to handle an evacuation from a known hazard.

8 Critical Assumptions

Every jurisdiction operates under a set of critical assumptions key to the successful execution of an evacuation plan. These assumptions must be stated upfront in order to help provide a framework for the evacuation plan. Assumptions might deal with local parameters (e.g., unique structure for emergency management or unusual conditions) or with local limitations (e.g., unique geography or weather-related issues). Examples of critical assumptions include, but are not limited to:

- Evacuation is often a multiple-jurisdiction activity
- Incident Command System (ICS) will be used to manage evacuation activities/phases at all levels
- Many disasters/emergencies occur with little or no warning
- Evacuees may be only temporarily displaced unless the incident causes destruction or contamination of homes/businesses
- Evacuations may be spontaneous, with little or no government control in place to guide initial evacuee movement
- With rare exception, the State of Washington typically has no authority to mandate evacuations and enforce them
- Some citizens will not be willing to evacuate, regardless of the hazard(s)
- Plans will include provisions for special needs populations, pets, and livestock

Each jurisdiction will have its own set of critical assumptions based on local parameters and limitations unique to that jurisdiction.

9 Concept of Operations

In the planning process, the concept of operations (CONOPS) is the set of guiding principles that establishes an operational framework for the evacuation plan. It is intended to address high-level issues such as the command structure, the respective roles and authorities of participating agencies, and the approach to communications. In most jurisdictions, emergency management agencies have developed a CONOPS for emergency response, and planners preparing an evacuation plan should work with those agencies to understand the local approach to the CONOPS. This should be used as a foundation for the evacuation plan.

Those preparing the evacuation plan must ensure that their CONOPS is structured to focus on the transportation elements of an evacuation, as the evacuation plan may just be

one part of a larger disaster response. In most cases, emergency management CONOPS are primarily concerned with first responder and law enforcement activity. Given the significance of transportation to an evacuation effort, this approach may need to be modified appropriately.

For an effective evacuation plan, the CONOPS needs to be structured in a way that will support evacuation managers while taking into consideration the limitations or conditions imposed by all scenarios. Most CONOPS are designed to be as simple and as adaptable as possible to facilitate implementation in response to a wide variety of precipitating incidents. It should provide for immediate activation and expedited decision making with imperfect information and limited operational resources. Elements of any CONOPS should be designed to compensate for critical gaps in the preparation process, especially during the early phases of an event or incident. The CONOPS sets the tone for the entire evacuation plan and as such it should emphasize how the process it establishes can be activated in response to any event or incident with success.

As part of developing (or rethinking) the CONOPS, invested parties need to consider the availability of transportation resources, so the CONOPS reflects the full capabilities that are available for managing an evacuation. In doing so, the conversations need to stress the advancement of the integration of the transportation and emergency management information and communication systems/architectures, including the transportation management and emergency operation centers, and the importance of creating redundant systems for maintaining lines of communication and situational awareness.

9.1 Acknowledgement of the State and Local Response Levels to Disasters and Events

Every jurisdiction has its own enabling legislation regarding the authority of different parties in emergency situations. Whether it is a local/regional planner or emergency manager, key staff that will have responsibilities within the command structure of an evacuation will need to clarify declarations of authority as part of developing the command structure to be included in the CONOPS.

The checklist items provided in this template are meant to guide planners to help them identify which officials or agencies have the authority to declare and evacuation within a given jurisdiction. It is important that more than one individual be aware of which officials and agencies are given the authority to coordinate an emergency response, including an evacuation, and identify if there are limitations on an agency's or official's authority. Will this authority vary depending on the scope, location/circumstances of the precipitating incident? Are there procedural requirements regarding a Proclamation of Emergency or Evacuation Notification, before a wide-scale evacuation can be initiated?

Lastly, since it may be incumbent on the local transportation authority to initiate and manage the evacuation, it is important to clarify the authorities and powers provided to the transportation agencies. It is important to understand what role your jurisdiction will play in the evacuation to ensure the correct authorities have been employed. Further, if your jurisdiction is playing a leading role in the evacuation, can transportation agencies or group step forward to lead this portion of a disaster response to expedite and facilitate an evacuation?

9.2 Identification of Relevant Agencies

Small scale evacuations can be managed with simple, straight-forward thinking and basic application of tools such as the ICS; however, large-scale evacuation is incredibly resource-intensive and may overwhelm any jurisdiction, even if a good plan has been prepared. All plans should consider small, single-jurisdiction responses as well as large, multi-jurisdiction responses. Large responses will require significant staffing, facilities, and equipment to collect and coordinate information; establish a management structure; coordinate evacuation activity in the field; and activate and operate sheltering facilities. Smaller responses will require all the same from a public perception standpoint but often times with all these solutions provided by only local resources. As such, planners will benefit greatly from leveraging all of the available resources within their service area during an evacuation. The majority of these resources should be provided by specific agencies, organizations, and private-sector entities, all of whom will be participating in the evacuation effort in one way or another. By identifying and involving all relevant agencies in the planning process, it will become apparent which agencies are most equipped (and appropriate) to handle the different aspects of the evacuation that your jurisdiction may be called on to support.

The nature of the command structure will, by necessity, depend on the agencies and organizations to be coordinated under the command structure and is discussed further in the next section. For example, many emergency management and law enforcement entities already have established command protocols that work well for them during emergencies. An evacuation, however, will likely involve a broader range of participants, some of whom will likely not be experienced with formal command structures in an emergency context.

It is important to vet out and identify the members of a command structure who may be called on to manage or execute an evacuation. The planning process should take into account and involve all agencies and entities who will participate in declaring, executing and supporting evacuation and sheltering efforts. This should encompass all levels of involvement: local, regional, state, federal, non-profit, and private. Planners should consider multiple categories of involvement, including the following (as all may be involved at some level of the evacuation depending on the role of the jurisdiction):

- **Executive government**: mayor and city hall, county administrators, governor
- **Emergency responders**: emergency management agencies, fire and rescue agencies, law enforcement agencies
- **Transportation management**: city transportation departments, county and regional agencies, and state transportation agencies or resources
- **Transportation providers**: transit authorities, Amtrak and commuter rail operators, local transit providers, private bus companies, taxi companies, trucking companies
- **Public works agencies**: Public Works, Water, Power, Environmental agencies

- **Emergency care providers**: Public Health, hospitals and medical facilities, American Red Cross, sheltering site operators
- **Communications providers**: telephone companies, mobile phone service providers, broadband and Internet service providers
- **Media**: television and radio stations
- **Private services providers**: towing companies, service stations and fuel companies, food and dry goods retailers

These groups and agencies may have different roles and responsibilities in the evacuation depending upon the jurisdictions' role in the evacuation process. By involving these stakeholders in the process from an early stage, planners can help to ensure a common understanding among all parties regarding operational goals, command structure, roles and responsibilities, and respective capabilities. Participants will also be able to inform the planning process by providing information about their operational resources and limitations, as well as specialized knowledge of the transportation network, sheltering facilities and support infrastructure.

Emergency managers and evacuation planners should address in advance any needed mechanisms for cooperation and support among the stakeholders. These can include memoranda of understanding (MOUs), mutual aid agreements, and contract provisions, to help clarify respective roles and resources. This process can be particularly important for private-sector companies who do not automatically assume they have a duty of responsibility during an emergency, but who sometimes have the ability to provide critical services and support resources for an evacuation and sheltering.

In particular, it is critical for transportation agencies or service providers to become fully engaged as stakeholders in the planning and the execution of an evacuation. Transportation agencies would be better served if they integrate evacuation planning and emergency management services into their core operations by identifying and committing staff, and defining staff roles and responsibilities for interacting with state, regional and local emergency management staff. This may require an organizational shift and willingness on the part of agency management to shift financial resources and commit staff.

9.3 Incident Command Structure/National Incident Management System

A robust command structure greatly improves the response capabilities of emergency management agencies to any kind of incident. It facilitates centralized decision-making based on current information, coordinated response activities among multiple agencies at different levels of government, and flexibility to adapt to changing circumstances.

The National Incident Management System (NIMS) is a comprehensive national approach to incident management, applicable at all jurisdictional levels and across functional disciplines, which improves the effectiveness of emergency response. It comprises a set of operating principles and guidelines designed to provide a consistent approach to incident response management and improve the ability of agencies to work

together effectively and efficiently. It is recommended that the evacuation plan is developed in accordance with NIMS principles and protocols.

The Incident Command Structure (ICS) is an operational element of the NIMS. It establishes a standard organizational structure for incident management, which enables multiples agencies and jurisdictions to work together effectively during a response effort. The ICS framework is designed to be adaptable for a broad range of incident types and combinations of response agencies. ICS is most beneficial when staff from all relevant agencies have received training in ICS principles and practices. This is particularly important during an evacuation, which involves many different types of agencies with varying levels of experience in emergency management and response. NIMS and ICS will help foster better coordination among such agencies.

Evacuation managers will need to rapidly establish an appropriate command structure that will enable an effective response to identify, move and safeguard the at-risk population. This is much more likely to occur successfully if a jurisdiction has established a clear set of protocols and procedures with regards to how an ICS command system will be initiated, organized, and implemented across multiple agencies and jurisdictions. It is important to anticipate and identify those who may become the Incident Commander (IC) and ensure they have both the training and resources available for when they may be called on to declare and initiate an evacuation. Further, the jurisdiction should identify from where the incident will be managed; with the exception of small evacuations that can be managed from an Incident Command Post (ICP) in the field, most evacuations will need to be managed from an operations or control center.

It is important to remember that over the course of a large-scale emergency, particularly one affecting multiple jurisdictions, it is likely that overall command of the evacuation management will transfer between agencies over time. This is so that command is always being conducted by the agency with the proper authority, expertise and resources for the given circumstances; this is the heart of the ICS approach, to maintain span of control with appropriate staff and resources.

Evacuation planners can set parameters to determine which agency will be in command of an evacuation under each set of conditions or circumstances; relevant factors include the geographic scope of the evacuation, as well as the types of staff and resources involved in the response. This will help to establish a clear protocol which agencies can use during an evacuation to understand how and why command will be transferred, thus maintaining a clear hierarchy within the overall command structure. Procedures for transferring command should also be prepared; these will enable incoming commanders to quickly get a full understanding of the situation and the response efforts to date.

It will be important to remember that there will likely be many players that are not familiar with ICS and NIMS. The transportation community, public works departments, and others providing important resources to an evacuation plan should not expect to play a lead role in establishing and managing a command structure; however, they need to be familiar with how the structure works, the hierarchy that will be followed by first responders, and the protocols and standard operating procedures that will be employed. Many instances exist in which transportation staff or public works crews, particularly highway incident response and maintenance crews and transportation management staff,

are the first to detect and respond to an incident. They need to be able to assess the situation, and make decisions that will trigger a local or regional notification process. This requires mutual familiarity among transportation and first responder staffs, particularly as to roles and responsibilities and how best to engage one another during an incident.

10 Situational Awareness

Given the potential for unusual, high-demand travel patterns, compromised infrastructure, and changing volumes and conditions during the evacuation, there is a need for emergency management personnel to continually monitor and assess the status of the evacuation in real time, using this "situational awareness" to implement corrective actions and to provide updated information on evacuation conditions.

A number of technology tools are available or have been implemented to provide transportation and emergency officials with a sense of real-time conditions during an evacuation process.

Washington State Department of Transportation, King County, and local jurisdictions have made significant investments in recent years in Intelligent Transportation Systems (ITS) infrastructure that can provide emergency responders and traffic management officials with valuable information on the real-time status of the transportation network during an evacuation. ITS technologies include video cameras and surveillance systems, traffic flow monitors, coordinated traffic control devices (e.g., signals), and public traveler information systems. These systems are centrally managed from several control centers operated by transportation authorities throughout the County and the State.

Using situational awareness tools for evacuation management requires coordination among agencies that develop and operate the technology (e.g., transportation agencies) and the emergency management incident command structure in charge of the event. Significant progress has been made in recent years in developing relationships among transportation agencies and emergency responders that can support real-time situational awareness to manage evacuations and other emergency events.

Existing traffic, transit, and transportation system operating strategies may need to be re-examined to take into account the needs, communication requirements, and/or operational concepts that will facilitate effective emergency management of evacuations under extraordinary circumstances.

A variety of technological and procedural strategies can be used to ensure that those who have situational awareness capabilities are able to provide this information to those who need this information to manage the evacuation:

- Center-to-Center connections among transportation and emergency management operations centers to provide access to real-time transportation system information and video to emergency managers;

- Virtual information sharing networks that provide 'desktop' and in-the-field access to video, flow data, and incident reports to emergency responders who are stationed in the field;

- Interoperable regional radio communications networks that allow transportation management official's to speak directly with emergency responders and transportation personnel in the field during evacuations;

- Co-location of emergency management and transportation personnel in emergency operation center locations during emergency management situations to enable face-to-face coordination as well as access to situational awareness technologies from a single location.

11 Communications with the Public

It is not only emergency management and response agencies who need to prepare in advance of an evacuation. The execution of an evacuation will proceed much more smoothly if the evacuees themselves are properly prepared as well. Ensuring that the public knows what to do and where to go will greatly assist emergency personnel during an evacuation. There are two main areas of concern when dealing with the public:

- Educating citizens about what to do and expect when a disaster occurs in the future
- Communicating with citizens once a disaster is imminent and throughout the actual evacuation process

When the public has a better understanding of what to expect during an evacuation and how to prepare themselves, they will be more self-reliant during the actual evacuation and thereby lessen the burden on emergency responders. This, in turn, will enable responders to focus on those segments of the evacuation population who require the most assistance (e.g., special needs populations).

11.1 Public Education

Jurisdictions should increase public awareness and knowledge so that citizens will be in a better position to act if a disaster ever occurs. One way to do this is by conducting public information programs to increase citizen awareness of potential hazards specific to the area that may require an evacuation effort. Information should include:

- Preparations to carry out in advance
  - "Emergency Go" kits
  - Workplace and family evacuation plans
    - Regular drills to practice plans
    - Potential need to shelter in place

- Special considerations for animal owners
  - Appropriate cages, carriers, or trailers for animals
  - Supply of medicine and special foods required by the animals
  - Identification worn by animals at all times
- Where to get information once an evacuation is declared
- How an evacuation will be declared
- What transportation options will likely be available
- What evacuation routes are likely to be used
- What support services are likely to be offered to evacuees
- What citizens should take with them during an evacuation
- Recommendations for families with small children
- How pets will be accommodated at shelters
- What services will realistically be provided to the special needs population during and after an emergency
- Where to get updated information once an evacuation is underway

Successful efforts for public education include community seminars and preparedness pamphlets distributed to residents and businesses. Information can also be posted on agency web sites. One resource available to local jurisdictions is the *Ready Campaign*, a DHS initiative. The *Ready Campaign* educates citizens about steps they can take in order to be better prepared to react to emergencies.[1] Some local public education initiatives are already being used in the Seattle UASI region.[2]

[1] For more information on *Ready* and how it can be used to educate the public, go to: www.ready.gov/america/about/index.html

[2] See www.metrokc.gov/prepare/preparerespond/basicbetterbest.aspx and www.metrokc.gov/prepare/preparerespond/hometeam.aspx

11.2 Public Notification and Communications

Public awareness will be a key consideration in the effective implementation of any evacuation plan. One of the most difficult components of the plan will be getting information to the public, either immediately before or in the immediate aftermath of an incident, on what they should do during the evacuation.

Effective and informative notification to the public will be vital to convincing them that they should evacuate or shelter-in-place. Evacuation personnel should consider what information they need the public to understand, in advance of an evacuation. Without proper information, people may evacuate towards a hazard, and put themselves in greater danger, or may evacuate unnecessarily and create additional congestion on evacuation routes.

11.2.1 *Initial Notification*

Effective initial communication to the public will enhance the efficiency of the overall evacuation effort. The public is often confused during the initial stages of an evacuation and unable to make informed decisions about what to do. Some people will not know if they are in a hazardous area, might evacuate unnecessarily, or may not know when to respond to an evacuation order. The initial public notification should at a minimum provide basic information to residents including:

- Whether residents should evacuate or shelter-in-place
- The areas that need to be evacuated, with reference to known geographic features
- Why and when residents should evacuate
- The time required for evacuation efforts
- Assembly point locations
- Shelter locations, including availability
- Where to pick up children (for when an evacuation happens during the weekday and school children are evacuated)
- The designated transportation and evacuation points and evacuation routes
- Available transportation options (start/end time, transportation point locations, frequency of pick-ups, travel destinations)
- What residents should take from their homes
- How long the evacuation is expected to last
- How pets will be accommodated

- Security plans that are in place to protect residential property
- When informational updates will be made available
- Other information deemed appropriate and required before residents evacuate

Individual jurisdictional planners should determine what information will be most beneficial to the public based on the specific circumstances surrounding the incident and resulting evacuation.

11.2.2 *Evacuation Informational Updates*

Once an evacuation effort has started, the public should be given coordinated, frequent, and accurate information. Real-time updates should include:

- Location of assembly points and shelters
- Current evacuation routes
- Current road and area closures
- Availability of hotels, food, fuel, medical and other essential services
- Current traffic conditions
- Updated shelter capacities
- Security measures being implemented
- Weather conditions, if applicable
- Changes to the original evacuation order

Depending on the duration of the evacuation, communication methods may vary from the onset of the evacuation to the conclusion of the evacuation. Therefore, it is important that the public understands how to continue to access informational updates for the duration of the incident.

11.3 Communications Methods and Systems

Situational awareness of conditions during the evacuation provides emergency responders with the ability to provide this information to the public, whether they are mobilizing, en-route, preparing to return, or unsure of the appropriate course of action. Several channels exist to provide traveler information to the general public in support of the evacuation, as summarized below.

Medium	Description	Strengths	Weaknesses
Broadcast Media	Use of radio and television	Widespread coverage and	Not able to provide detailed,

	to provide general, large scale travel update messages to a general audience, either through commercial media reports or the Emergency Broadcast System	accessibility; Available pre-evacuation and en-route; high degree of familiarity	pinpointed information tailored to a user's specific needs
Traveler Information Websites	Websites operated by transportation agencies (e.g. KC, WSDOT) that provide traveler information bulletins to the public	Ability to provide access to significant amounts of traveler information, including evacuation alerts and instructions, traffic speed information, and video images	Not available to many users while en-route or those without internet access
511 Telephone Traveler Information System	Automated telephone system operated by WSDOT that provides detailed route-specific information by telephone as part of a national system	Provides detailed information tailored to traveler's requests; available en-route during an evacuation; has the capability to provide "floodgate" general evacuation instructions to callers	Call volume capability is limited, and large-scale events may overwhelm its ability to accommodate all incoming calls
Reverse 911	Automated system that calls households in an affected region to provide pre-recorded emergency instructions	System 'pushes' information out to the public; messages can provide instructions to be followed	Information typically limited to high-level emergency instructions; not suited for dissemination of real-time updates to travelers en route
Fixed and Portable Dynamic Message Signs	Fixed or trailer-mounted electronic signs that can provide brief messages to travelers on the road or at key transit locations	Able to reach travelers en-route with specific information relevant to certain roadways or conditions; mobile signs can be deployed to evacuation traffic management hotspots	Limited number of fixed and mobile signs; limited reach based upon where DMS signs are located; cannot provide detailed information

To leverage these traveler information tools, it is important for jurisdictions to identify available resources within a specific area during the planning process, and then to identify the operational protocols that will enable emergency managers to take advantage of all or some of these systems by coordinating field personnel observations, ITS data, and emergency management instructions and providing them to the appropriate agency or agencies for dissemination through the applicable traveler information systems.

12 Traffic Management

Once planners have determined the number and geographic distribution of potential evacuees, these statistics can be analyzed against the transportation network. While highways are often the primary transportation mode utilized during an evacuation, in many instances other transportation modes and routes will likely be employed, including large numbers of pedestrians traveling on the road network.

In most evacuation scenarios, and particularly those in a no-notice context, the agencies managing an evacuation will need to rely on the existing transportation network to carry

evacuees from at-risk areas to safety. Identifying and analyzing all the components of the transportation network is an important element of evacuation planning. Each component should be reviewed to determine critical characteristics, including:

- Carrying capacity (number of vehicles/passengers per hour)
- Potential choke points (railroad crossings, interchanges, lane reductions, etc.)
- Potential vulnerabilities (bridges or tunnels)
- Sensitivity to seasonal considerations such as snow, fog, and flooding
- Location respective to evacuation population distribution
- Location respective to potential sheltering and care destinations
- Proximity to alternate, parallel routes

12.1 Traffic Management Challenges

Management of an emergency evacuation presents a number of distinct challenges for agencies tasked with initiating and coordinating the movement of large numbers of evacuees out of a hazard region in an orderly and efficient manner.

- Scale and Patterns of Movement: First and foremost, a large-scale evacuation scenario will place great strain on the transportation network's ability to handle the large volume of evacuees and vehicles that will result. Traffic volumes and patterns of movement may differ significantly from what the traveling public, and those tasked with traffic management at the state, county, and local levels, will be used to experiencing.

- Compromised Infrastructure: Certain types of incidents, such as earthquakes, fires, chemical plumes, or hostile incidents or threats, may also compromise the safety and availability of certain critical pieces of infrastructure, such as bridges, tunnels, viaducts, and transit infrastructure. This compounds the difficulty of managing an evacuation because both emergency officials and the general public need to quickly identify, assess, and respond to compromised transportation infrastructure by providing information on closures to the public and re-routing emergency vehicle movements.

- Secondary Incidents: Following the initial event that triggers the evacuation, secondary incidents (e.g., vehicle collisions, aftershocks, etc.) can further compromise evacuation infrastructure after the evacuation has commenced. Such events may require emergency responders to re-assess the evacuation strategy and to provide updated information to evacuees who are impacted by the effects of such secondary incidents.

Because transportation agencies are able to contribute significant resources and capabilities to the emergency evacuation process, it is important that transportation and emergency management coordination is an integral part of both the planning process and the real-time implementation of an evacuation scenario.

12.2 Transportation Modes

When planning an evacuation, a jurisdiction should consider all transportation options, including all modes, as viable alternatives. Although roadway and highway networks will be principal conduits for moving large number of people, the nature and consequences of a range of events will dictate what transportation options are best. With the foreknowledge of capacity and what transportation resources are available by corridor, decisions can be made as to how to distribute evacuees among modes. Within Washington State, the likely candidates for evacuation modes and networks include:

- Local roadways
- Highways
- Private vehicles
- On-road transit (bus and paratransit vehicles)
- Commuter and regional rail systems
- Ferries
- Pedestrian movement

12.3 Traffic Management Tactics

In most evacuation scenarios, the majority of evacuee movement will take place on roadways and highways, in both personal vehicles and transit vehicles. Given the potentially large numbers of vehicles that will be accessing the limited roadway network at the same time, it is important to consider what your jurisdiction, as well as adjoining jurisdictions, can do to increase the effective capacity of the roadways. The viability of the traffic management plan employed during an evacuation will have a direct relationship to the safety and comfort of the evacuees.

Local transportation planners should be involved in the development of the evacuation plan, because their understanding of the regional transportation network enables them to identify ways to improve the carrying capacity of roadways and transit systems in a safe manner. Planners will enable decision makers to determine:

- How to shift roadway utilization among a region's interstates, and primary and secondary roadways

- What routes are available for the most expedient movement of at-risk populations from their originating points to the highway network
- How to deliver evacuees to final destinations
- How to assign lane usage on interstates and other primary highways
- How to stage evacuations so that roadway congestion is minimized
- Whether to dedicate lanes for high occupancy vehicles and any others required to move certain special population groups

An integral component of the evacuation traffic management plan will be the selection of which tactics will be used to move traffic more efficiently. The challenge lies in identifying those tactics that provide the greatest increase in carrying capacity while imposing realistic time and resource requirements for implementation. The following table presents a list of potential tactics that can be used during an evacuation:

Tactic	Description
No changes to normal roadway operations	No implementation of any specialized traffic management tactics.
Phased releases of outbound vehicles, through timed control of major parking centers	Coordinated release of parking facilities would theoretically reduce congestion on evacuation routes. To accomplish implementation of this tactic, parking facilities would be inventoried and categorized according to size, location, or other relevant factors. A phased release protocol would be developed that would provide for gradual release of privately owned vehicles (POVs) from downtown parking facilities. This would theoretically modulate vehicular congestion on designated evacuation routes.
Reduction of outbound vehicles, through closure of major parking centers (i.e., forcing car owners to evacuate via walking transit)	Long-term closure of major parking facilities during an evacuation would reduce the number of POVs on evacuation routes and thus theoretically improve travel times on these routes during an evacuation.
Closure of inbound lanes on selected roads and highways	Closure of inbound lanes on highways utilized for evacuation routes would prevent motorists on these routes from entering the city while the evacuation is underway.
Closure of outbound off-ramps on limited-access roads and highways	Closure of outbound off-ramps on highways utilized for evacuation routes would keep evacuees on these routes until they reached planned evacuation destinations.
Closure of outbound on-ramps on limited-access roads and highways	Closure of outbound onramps on designated evacuation routes would reduce congestion on these roadways due to traffic originating at intermediate locations between evacuation origins and destinations.
Limited contra flow on selected limited-access roads and highways: e.g., one lane for bus convoys, etc.	Reversal of one or more lanes of highway to accommodate an increased flow of traffic in one direction. Contra flow has been implemented as a component of hurricane evacuation planning in certain southern and southeastern states, but is not a common feature of many disaster evacuation plans because of the need for a long lead time prior to the evacuation during which the contra flow can be established.
Unlimited contra flow on selected limited-access roads and highways- all normally inbound lanes used for	Redirection of all lanes of a designated evacuation route to accommodate rapid evacuation from a city or region. This is a tactic that lends itself primarily to limited access roadways.

outbound traffic	
Limited/unlimited contra flow on selected unlimited-access arterials	Temporary closure of inbound travel lanes on selected unlimited-access arterial roadways (such as parkways and boulevards) and allowing outbound traffic to utilize these lanes during an evacuation.
Traffic Control Points	Locations along designated evacuation routes which are staffed by emergency management personnel and utilized to maintain a greater degree of evacuation management. TCPs can enhance the efficiency of an evacuation, reduce public confusion during an evacuation, and allow increased operational flexibility during an evacuation.
Segregation of Pedestrian and Vehicle Traffic	Certain urban roadways would be designated for use by pedestrians. This would provide separation between vehicles and pedestrians during an evacuation, thus reducing confusion and increasing the efficiency of evacuation from densely populated areas.

There are no universal answers for which tactics are best; the choice depends on the unique characteristics of each jurisdiction's and region's transportation network and emergency management structure, and determined through traffic simulation testing. Planners will need to consider many factors during the planning process, including the following:

- Recognize that a region's highway network typically provides the greatest opportunities for moving large numbers of people. Beyond understanding highway capacity, there needs to be consideration of the highways' proximity to at-risk populations, and their connectivity with local street networks.

- Ensure that strategies expedite the movement of people who are most at risk. Pre-identification of those groups, if possible, enables planners to prioritize routes and zones that will support those with the greatest need for movement. Planners should also consider provisions for implementing a phased evacuation; this can not only prioritize the evacuees with the greatest risk, but can improve overall traffic flow by preventing simultaneous overloading of the transportation network.

- Conduct and enable pre-identification and dynamic identification of routes between facilities, residents and shelters, to ensure that predefined routes are safe in light of the specific threat (some routes may be more protective than others), and to maximize the capacity of available transportation assets.

- Identify secondary and alternate routes that can be used if primary routes become overwhelmed or incapacitated. Determine how alternate routes will affect the overall capacity of the network, and make contingency plans accordingly.

- Determine what planning, operational staff, systems, and activities are needed to implement the chosen tactics during an evacuation. Establish and practice the necessary routines for implementation before they are needed during a real evacuation.

- Factor in any limitations regarding the particular resources available during a no-notice evacuation scenario. Ensure that the selected tactics can be implemented with limited time, personnel, and equipment.

- Recognize that different traffic management tactics (and different routes) may be more or less appropriate for certain types of situations. Planners can opt to take an approach that identifies a number of options in the evacuation plan, but requires evacuation managers to select and implement only certain tactics based on the specific circumstances during the evacuation.

If possible, transportation planners should employ traffic modeling to test the routes and tactics to be included in the evacuation plan. This will provide data to help quantify the benefits of different strategies and support an informed decision as to the best ones for the particular region and transportation network.

13 Destinations

13.1 Assembly Points

In some cases, a jurisdiction may need to identify interim, short-term locations where people can gather, as part of the evacuation transportation plan. Due to the uncertain nature of incidents that trigger evacuations, the evacuees may be able to return directly to their residence or place of employment from the assembly point once the jurisdiction has indicated that it is safe to do so. For incidents of longer duration, these assembly points can serve as collection points for evacuees who have walked or ridden transit from the at-risk area, and who now must wait for secondary transport (buses, etc.) to longer-term sheltering facilities.

In general, well-known landmarks that have the capacity to handle large numbers of people have bus access, and an indoor sheltering area are suitable locations for assembly points. As outlined in the *Shelters* section, the same considerations in regards to staffing levels, capacity and function apply to assembly points. Pre-identifying sufficient assembly points in relation to the transportation network and evacuation routes will allow these locations to be incorporated into the evacuation plan.

13.2 Shelters

In addition to enabling the movement of at-risk populations to areas of safety, a jurisdiction is also responsible for arranging care and sheltering for those populations. The jurisdiction should coordinate with the American Red Cross and other stakeholders responsible for mass care that may be able to assist with operating shelters.

Sheltering facilities should be identified, assessed, and prepared in advance of being needed. The selection and preparation of shelters should be based on the populations they will be used to protect. Shelters with a wide range of capabilities and functions should be considered since there are many groups who will require specialized facilities and services during sheltering. These include many of the special needs populations (e.g.,

evacuees from hospitals and nursing homes who will require medical attention; vision- and hearing- or mobility-impaired; evacuees with pets). The ability of a sheltering facility to accommodate such special needs groups will depend on its on-site design and capabilities. Evacuation planners should determine which special needs groups should be routed to particular shelters, and how to incorporate such direction into the evacuation plan. By comparing shelter capabilities and capacities with the anticipated evacuation population, a jurisdiction can ensure it has made adequate sheltering arrangements, including the appropriate staffing levels for each shelter.

By pre-identifying sheltering facilities, their locations can be evaluated in relation to proposed evacuation routes and other components of the transportation network. Planners should assess shelters' locations, as well as their capabilities and capacities, facilities and resources, in relation to how evacuee traffic will be routed. If, for example, the major evacuation routes run north/south from a city but the viable shelters are east and west of the city, these issues need to be identified and addressed during the route evaluation and selection process. In some cases, certain shelters may be poor candidates for use due to poor connections with the transportation network.

For large-scale, medium- and long-term evacuations, a jurisdiction should assess the transportation network's ability to enable re-supply and provisioning of the sheltering locations. Some facilities may be easily accessible by air or water which, while being impractical for mass evacuee movement, may be practical for bringing in food and supplies.

One area that deserves attention is that of registering and tracking the location of evacuees at shelters. This becomes particularly helpful when loved ones attempt to find family members and friends who had to evacuate out of the affected area. A jurisdiction should recognize that the policies and procedures of outside shelter operators may be inconsistent with those of a jurisdiction. It has been the American Red Cross' policy not to share its list of registered shelter evacuees with public authorities. Consequently, a jurisdiction would have to designate someone to be on-site to participate in and observe the registration process. While more of an issue in the case of long-term sheltering, there could be instances where children and families are co-located in shelters with registered sex offenders and citizens with outstanding arrest warrants. Jurisdictions need to address in advance how these potentialities will be handled (e.g., law enforcement presence at the shelter), and the legality of their options.

Having jurisdiction personnel at shelters is also beneficial because it allows current evacuation information to be shared with evacuees at the shelters in a timely fashion. In instances where shelters are not jurisdiction run, jurisdiction personnel should work closely with shelter operators so all involved parties are aware of the status of evacuation operations.

13.2.1 *PETS Act*

According to the 2007-2008 American Pet Products Manufacturers Association (APPMA) National Pet Owners Survey, 63% of U.S. households include a pet. This equates to 71.1 million homes. In the aftermath of Hurricanes Katrina and Rita, the Pets Evacuation and Transportation Standards Act (PETS Act) was signed into law on

October 6, 2006. The PETS Act amends the federal Disaster Relief and Emergency Assistance Act, to require federal, state and local emergency preparedness plans to include provisions for rescue, care, and shelter of pets and service animals during disaster relief,. These new federal requirements must be considered when address evacuation and sheltering plans.

14 Re-Entry

Once an evacuation is complete and the immediate dangers posed from an incident have subsided, evacuees should be allowed to return to the affected area. Local jurisdictions will likely have a lead role in supporting the re-entry of evacuees. While many of the same parties, personnel, supplies and equipment used during the actual evacuation operation will also be involved during re-entry, there are a number of issues to consider.

The decision to reenter an area that has been evacuated is based on numerous public safety factors. The impacted area must be safe for residents and business owners to return. Below is a list of some of the activities in which a jurisdiction is responsible:

- Inspection of the affected area
- Assisting any victims who did not evacuate
- Removing any deceased victims from the area
- Performing an initial assessment of damage to homes and businesses
- Moving debris
- Handling downed power lines
- Restoring utilities and basic services to the area

Since the degree of damage will likely vary within the affected area it might be beneficial to initiate a phased re-entry process. As geographic areas are declared safe for re-entry, evacuees will be able to return. Texas relied on and successfully conducted a phased re-entry in the aftermath of Hurricane Rita in 2005.

In the best-case scenario, an incident will cause minimal damage to the local community. In these instances, after a damage assessment has been conducted and the all-clear been given by public safety officials, a message may be sent via the media that it is safe to return. It is possible that evacuees might be located well outside the boundaries of the affected area, particularly when dealing with incidents of a longer duration. As such, broadcasting of re-entry procedures should be part of an extensive public and media outreach campaign.

When communicating re-entry procedures to the public consider the following:

- What routes are available to evacuees?

- Are there any vehicle restrictions in place on those routes?

- Is a phased evacuation going to occur?
  - Are there particular times that evacuees can reenter the affected area?
- What services are available in the affected re-entry area?
- What utilities are functional in the affected re-entry area
- Will evacuees require an ID to reenter the affected area?
  - Are there any security checkpoints in place?
- What media sources can evacuees turn to for the most up-to-date information on re-entry procedures?

Evacuees who self-evacuated using their own means of transportation should be able to return on their own accord. If a jurisdiction provided transportation to shelters, the jurisdiction may have to organize return transportation for those evacuees. As with the initial evacuation, numerous resources, especially personnel and transportation related resources will be required to successfully return evacuees to the affected area.

15 Administration

In any multi-jurisdictional evacuation effort, communication and coordination between all of the agencies and jurisdictions involved is always a crucial element. Procedures need to be in place to allow for interaction, information sharing, and communications between all involved parties. There are many areas where the importance of multi-jurisdictional coordination is essential.

Note that some elements of this section may already exist in previously-written emergency management plans, notably the CEMP. Where possible, it is appropriate to include these provisions in the evacuation plan by reference to the relevant sections of the existing plans.

15.1 Resource Management

Evacuations are incredibly resource-intensive and require significant personnel, facilities, and assets to implement successfully. As part of the planning and preparation process, agencies need to determine what resources they will have available, as well as what resources they will need to perform their allotted roles during an evacuation. It may be beneficial to consider the resources required in terms of each phase of an evacuation, as there could be some significant differences depending on what a jurisdiction is trying to accomplish. For example, the resources required to run a shelter are completely different from those required to designate and manage evacuation routes. In many cases, an agency may not have all of the resources it expects to require, and may need to coordinate with other agencies or sources to establish sharing and mutual aid agreements. This situation

will likely be exacerbated during a no-notice incident, when agencies will have less time to identify, obtain, and position resources and will need to rely on only locally-available or pre-positioned equipment.

Since the execution of a successful evacuation will require a tremendous amount of resources, emergency management agencies in charge of an evacuation will need to ensure they have the proper types and quantities of assets at their disposal. These include:

- Staff personnel (variety of roles and expertise) available and on-site
- Operational facilities
  - Incident command posts (ICPs)
  - Unified/Area Command posts
  - Emergency operations centers (EOCs)
  - Traffic management centers (TMCs)
- Data collection equipment and systems
- Communications equipment and systems
  - Landline telephone
  - Mobile phones
  - Radio system
  - Email and electronic data transfer systems
- Vehicles
  - Staff transport
  - Transit vehicles
  - Heavy equipment
  - Resource transport
- Miscellaneous materiel, including:
  - Moveable concrete barriers
  - Traffic cones
  - Mobile variable message signs (VMS's)

- Sheltering supplies

Any resource management that can be done in advance of being needed for an evacuation will enable agencies to respond more effectively and efficiently when an incident occurs. Every jurisdiction has particular assets it can dedicate to the management of an evacuation. Each jurisdiction should create and maintain an inventory of its assets, so it can better understand its level of preparedness and potential gaps with regards to activity during an evacuation.

ICS dictates that resources are categorized by type and kind.

- '***Kind***' describes what the resource is (e.g., Operations Section chief; ambulance; police officer; tow truck; excavator)

- '***Type***' describes the size, capability, and staffing qualifications of a specific kind of resource

A common example given to illustrate the importance of "typing" resources has to do with a hazmat incident. In response to a hazmat spill, a jurisdiction requests a hazmat team, with the expectation that they will be equipped with full hazmat Level A suits; instead, the team that arrives on scene is equipped with only respirators. Although they are both the same *kind* of resource (a hazmat team), they are different *types* (based on the equipment they carry). By typing resources, confusion such as this can be eliminated. It eliminates the guess work when another agency or jurisdiction makes a request for a resource because all involved parties will be on the same page, a key factor when mutual aid requests are made.

It is not enough to just identify required resources. A jurisdiction must also ensure that for each resource identified, it is aware of the responsible entity for that resource. This will allow for a smoother transition when resources require actual transportation. Once it is determined that resources will be required for an evacuation response, those resources should be tracked from their initial mobilization until they are demobilized. Tracking resources efficiently while they are on the incident is essential for personnel safety, accountability, and fiscal control. Resource tracking must account for the overall status of resources at the incident; tracking responsibilities are usually shared between the Planning Section and Operations Section.[3]

15.2 Supportive Agreements

Jurisdictions should determine the best way to obtain needed resources. This may involve the procurement of additional assets, or coordinating with other entities to determine where surplus inventories exist and can be shared. In some cases, resources can be expected from state and federal agencies; local agencies should make this determination

[3] Further information on resource tracking responsibilities may be found in *ICS 300: Intermediate ICS for Expanding Incidents, Unit 6*.

while factoring in the expected time delay between when the evacuation effort starts and when these assets will be on-site. In many cases, public agencies can make arrangements (or rely on pre-existing contracts) with private vendors and service providers; on-call contractors can fill vital resource gaps during evacuation activities.

15.2.1 *Mutual Aid Agreements*

Mutual aid agreements are helpful when a jurisdiction requires some type of assistance from another entity, whether it is a neighboring jurisdiction, private-sector organization, or even the federal government. Mutual aid agreements may be used by a jurisdiction to secure assembly points or shelters, transportation vehicles, or to address critical resource gaps. They provide the means for one entity to provide resources to another entity during an incident when existing resources prove to be inadequate. At a minimum, mutual-aid agreements should include the following elements or provisions:

- Definitions of key terms used in the agreement
- Roles and responsibilities of individual parties
- Procedures for requesting and providing assistance
- Procedures, authorities, and rules for payment, reimbursement, and allocation of costs
- Notification procedures
- Protocols for interoperable communications
- Relationships with other agreements among jurisdictions
- Workers compensation
- Treatment of liability and immunity
- Recognition of qualifications and certifications
- Sharing agreements, as required

Taking care of all of these matters upfront and having standby contracts already in place will help to alleviate confusion so that during an actual incident time will not have to be spent on such administrative issues.

There are times when an incident will overwhelm a local jurisdiction, even with coordination with the private sector and neighboring jurisdictions through mutual aid agreements. When these resources are not enough, local jurisdictions may reach out to its state for personnel, materiel, assets, technical assistance, and funding. When an incident overwhelms or exhausts local resources, the state can provide direct support of the evacuation operation. The state may be able to coordinate evacuation plans, information, and needs with potentially impacted areas or shelters established outside of a

jurisdictional boundary, as well as coordinate with surrounding states that may be impacted by the evacuation.

15.2.2 *EMAC*

One resource that State officials have access to is the Emergency Management Assistance Compact (EMAC). Through EMAC, State officials may request specific additional assistance for personnel and equipment. All fifty states participate in EMAC; the State of Washington became a signatory in 2001. Requests are made at the state level to ensure that priorities are set to address the overall situation in the state, without localities competing with each other for resources. Local planners should work with their counterparts at the state level to understand the process for making requests through EMAC.

15.3 Emergency Funding Mechanisms

Funding mechanisms for emergency situations should already be documented through enabling legislation and contained in a jurisdiction's CEMP, or equivalent document. When reviewing emergency funding mechanisms it is helpful to ensure the following elements are addressed:

- The provisions should not specify a cap on expenditures.
- The provisions should not specify that the jurisdiction has put money aside explicitly for disaster response in advance of an incident occurring; this may effectively function as a "deductible," making it impossible for the jurisdiction to be reimbursed for these funds.
- The provisions should not use language similar to "contingent on FEMA reimbursement" – FEMA objects to such wording, and it may impede the ability to obtain funding at the time it is needed.

Although emergency funding mechanisms will not be specifically listed as part of the evacuation plan, it is a jurisdiction's responsibility to be aware of the content of enabling legislation for emergency funding mechanisms.

15.4 Post-Evacuation Reimbursement Claims

A jurisdiction may request and be reimbursed for many of the costs associated with an evacuation. Examples of reimbursable expenses may include overtime costs for public safety and transportation officials, back-fill labor, materials used in support of the evacuation, rehabilitation or replacement of equipment used during the evacuation, and contract labor and equipment (through existing contracts or emergency contracts). If a jurisdiction does not currently have expense tracking mechanisms in place then steps should be taken to establish these mechanisms so that they can be used and followed during an evacuation.

During an evacuation, a jurisdiction must consider the proper way to document expenditures in order to receive reimbursement. To do so, a jurisdiction must ensure expense tracking mechanisms are followed. This will be based on the requirements of

the level of government (e.g., County, State and Federal) in which a jurisdiction submits its compensation claims. In many cases, the costs may be reimbursed by the state. In instances where an incident results in a presidential declaration of disaster, a state might consolidate local and state expenditures associated with the disaster and seek reimbursement from the federal government. Usually, actions taken to safeguard the public and protect property, including evacuation efforts, are reimbursable expenses by the federal government. A jurisdiction will be held responsible for documenting expenses and completing any appropriate forms requesting reimbursement.

15.5 Post Evacuation After-Action Reports

Once an evacuation is completed and the command structure deactivated, it is important to conduct a debriefing of those parties involved in the evacuation. Each jurisdiction, agency, and organization involved should review its own actions and assess how well it coordinated with other involved parties. This allows for an honest review of how the evacuation was executed and helps to illustrate what can be done by involved parties to better prepare for and execute the next evacuation. By highlighting both the successes and failures of an evacuation, an after-action report (AAR) is an invaluable resource in preparing a jurisdiction to respond to the next incident.

16 Plan Review and Maintenance

Evacuation plans should be reviewed on a regular basis to ensure that the information in the plans is accurate and up-to-date. AARs will help to determine the changes to make, if any, to an evacuation plan and are an important part of the evacuation plan review process. During the plan review process, the established metrics of performance already set forth by a jurisdiction should be applied. These standards of measurement should be reviewed for continued relevancy and applicability.

Designating one agency to be responsible for plan maintenance will make updating the plan more manageable since all suggested changes will go through one source. The designated agency will be responsible for establishing a timeframe for plan review and ensuring that the schedule is not only communicated to relevant parties but also followed.

During the evacuation planning process it is important to establish metrics for performance. By determining the standards of measurement your jurisdiction will use to measure the operational success of your evacuation plan and by applying those criteria during drills and exercises, needed improvements can be identified and targeted. Sample metrics include:

- Amount of time it takes to evacuate the affected area
- Amount of time from the initial incident to the decision to issue an evacuation order
- Number of casualties/fatalities during the evacuation operation

- Rate at which all involved entities (jurisdictions, agencies, organizations, private-sector companies) are made aware of the activation of the evacuation plan

The metrics chosen for your jurisdiction should be reviewed regularly in accordance with your evacuation plan's review and maintenance schedule.

17 Exercises

The Homeland Security Exercise and Evaluation Program (HSEEP), based on a presidential directive, employ a capabilities-based approach to exercises. Based on HSEEP principles, exercises are divided into one of two categories: discussion-based or operations-based. What a jurisdiction wants to accomplish through exercising will help determine the type of exercise that should be used.

There are four types of discussion-based exercises:

- Seminars
- Workshops
- Tabletop exercises
- Games

Primarily, discussion-based exercises are used to highlight existing plans and procedures and focus on strategic, policy-oriented issues. Operations-based exercises are more intensive than discussion-based exercises. Their primary focus is to validate the plans and procedures solidified in discussion-based exercises. Operations-based exercises consist of:

- Drills
- Functional exercises (FEs)
- Full-scale exercises (FSEs)

With an operations-based exercise, participants perform operational duties (respond to emergency conditions, mobilize equipment, commit personnel, decipher simulated intelligence). The table below outlines the nine types of exercises.

	Utility/Purpose	Type of Player Action	Duration	Real-Time Play?	Scope
Discussion-Based Exercises	Familiarize players with current plans, policies, agreements, and procedures	Notional; player actions are imaginary or hypothetical	Rarely exceeding 8 hours	No	Varies
Seminar	Provide overview of new or current plans, resources, strategies,	N/A	2-5 hours	No	Multi- or Single-

	concepts or ideas				agency
Workshop	Achieve specific goal or build product (e.g., exercise objectives, SOPs, policies, plans)	N/A	3-8 hours	No	Multi-agency/ Single function
Tabletop Exercise (TTX)	Validate plans and procedures by utilizing a hypothetical scenario to drive participant discussions	Notional	4-8 hours	No	Multi-agency/ Multiple functions
Game	Explore decision-making process and examine consequences of those decisions	Notional	2-5 hours	No (though some simulations provide real- or near-real-time play)	Multi-agency/ Multiple functions
Operations-Based Exercise	Validate plans, policies, agreements, and procedures; clarify roles and responsibilities; identify resource gaps	Actual; player action mimics reaction, response, mobilization, and commitment of personnel and resources	May be hours, days, or weeks, depending on purpose, type, and scope of the exercise	Yes	Varies
Drill	Validate a single operations or function of an agency	Actual	2-4 hours	Yes	Single-agency/ Single function
Functional Exercise (FE)	Evaluate capabilities, functions, plans and staffs of Incident Command, Unified Command, intelligence centers, or other multi-agency coordination centers (e.g., EOCs)	Command staff actions are actual; movement of other personnel, equipment, or adversaries is simulated	4-8 hours or several days or weeks	Yes	Multiple functional areas/ Multiple functions
Full-Scale Exercise	Validate plans, policies, procedures, and cooperative agreements developed in previous exercised through their actual implementation and execution during a simulated scenario; includes actual mobilization of resources, conduct of operations, and integrated elements of functional exercise play (e.g., EOCs, command posts)	Actual	One full day or several days or weeks	Yes	Multi-agency/ Multiple functions

Source:*https://hseep.dhs.gov/support/HSEEP%20Volume%20I%20021507%20(Final%20Revision%20February%202007).pdf*

Your jurisdiction should establish a schedule that specifies what types of exercises will be used, and how frequently they will be conducted.

18 Authorities

Any evacuation plan must be developed and maintained pursuant to relevant county, state, and federal statutes and regulations. Every effort should be made to ensure that the

evacuation plan is compatible with the Federal Emergency Management Agency (FEMA) and the Revised Code of Washington, Chapter 38.52.

Federal and state statutes and regulations will be applicable across all counties in Washington, are listed below. The statutes and regulations applicable at the County level are specific to each County. Jurisdictions should refer to their respective comprehensive emergency management plan (CEMP) and associated plans for a list of relevant statutes and regulations. Pay particular attention to any provisions authorizing Proclamations of Authority.

Note that some elements of this section may already exist in previously-written emergency management plans, notably the CEMP. Where possible, it is appropriate to include these provisions in the evacuation plan by reference to the relevant sections of the existing plans.

Federal

1. Code of Federal Regulations Title 44, Part 205 and 205.16.
2. Public Law 920, Federal Civil Defense Act of 1950, as amended.
3. Public Law 100-707, Robert T. Stafford Disaster Relief and Emergency Assistance Act.
4. Public Law 93-288, Disaster Relief Act of 1974, as amended.
5. Public Law 96-342, Improved Civil Defense 1980.
6. Public Law 99-499, Superfund Amendments and Reauthorization Act (SARA) of 1986, Title III, Emergency Planning Community Right-to-Know Act (EPCRA).
7. Public Law 105-19, Volunteer Protection Act of 1997.
8. Homeland Security Act of 2002.
9. Homeland Security Presidential Directive/HSPD-5.
10. Homeland Security Presidential Directive/HSPD-8.
11. National Response Plan of 2004, with Notice of Change amendments from 2006.
12. Pets Evacuation and Transportation Standards Act of 2006.

State of Washington

1. Chapter 38.52, Revised Code of Washington (RCW), Emergency Management.
2. Chapter 38.08, RCW, Powers and Duties of Governor.
3. Chapter 38.12, RCW, Militia Officers.

4. Chapter 38.54, RCW, Fire Mobilization.
5. Chapter 35.33.081 and 35.33.101, RCW, as amended.
6. Chapter 34.05, RCW, Administrative Procedures Act.
7. Chapter 43.06, RCW, Governor's Emergency Powers.
8. Chapter 43.105, RCW, Washington State Information Services Board (ISB).
9. Chapter 118-04, Washington Administrative Code (WAC), Emergency Worker Program.
10. Title 118, WAC, Military Department, Emergency Management.
11. Washington State CEMP.