EVACUATION FRAMEWORK

City of Kirkland

Office of Emergency Management
Last Update: 06/2021

Record of Changes

Change Number	Section	Date of Change	Individual Making the Change	Summary of Change
N/A	All	6/21	Karissa Smith	Creation of framework

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Introduction

Purpose

The purpose of this framework is to describe the strategies for managing evacuations that exceed the day-to-day capabilities of the City. These strategies are developed using an all-hazards approach to be prepared for and manage evacuations and are designed to be applied to an incident, regardless of the involved threat or hazard that precipitates the need to evacuate some or all of an identified population.

This document does not recommend a specific evacuation plan but identifies evacuation tools and resources that could be utilized during an evacuation incident. It is understood that the Incident Commander and/or Emergency Manager will direct the development of an incident-specific evacuation plan and route(s) at the time of the incident.

Scope

This framework is applicable to the residential and business communities of the City of Kirkland and addresses the coordination of resources and activities related to human and domestic animal evacuation during an incident. This document will likely be leveraged as a resource to the City's Comprehensive Emergency Management Plan (CEMP).

Situation Overview

Incident Conditions and Hazards

The risk of a full City-wide evacuation is extremely low for Kirkland due to the limited known hazards or threats that would require all areas of the City to evacuate simultaneously. Kirkland does not have a significant risk for widespread flooding or tsunami, lahars, or wildland fire. If an incident did precipitate a need for a City-wide evacuation, it would likely have similar impacts on surrounding jurisdictions, thus evacuation efforts would require a coordinated approach, ideally through a regional effort at the County level.

Incidents in Kirkland that may necessitate a small-scale evacuation, include but are not limited to, hazardous materials (hazmat) incidents, civil unrest or threats of violence, urban fire, landslides, seiche, or infrastructure failure. These dynamic situations would facilitate real-time coordination and planning to determine appropriate evacuation parameters, areas, routes, and destinations.

Planning Assumptions

Planning assumptions that apply specifically to the concept of evacuation include:

- Most people at risk will evacuate when local officials recommend that they do so.
- People at risk will be more likely to evacuate as a potential threat or hazard becomes obvious and serious to public safety.
- Most people will be able to evacuate under their own power with direction and/or guidance from the City.
- Residents may not evacuate if they are unable to bring their pets or animals with them.
- Residents may prefer to shelter in place rather than evacuate during an incident.

- Evacuations may involve a variety of buildings and structures (residential, commercial, schools, child care, retail, public, medical), geographic areas (parks, transportation routes, etc.), population groups (residents, visitors, people in transit, workers), and people in a variety of situations (driving, walking, at home, working, caring for children).
- Evacuating populations may include people with access and functional needs (AFN), such as limited mobility, visual impairments, reliance on service animals, prescription medication requirements, durable medical equipment, or limited English proficiency (LEP).
- The local and/or regional transportation system may become disrupted during evacuation incidents.
- Individuals will want to utilize familiar routes for evacuation.
- There may not be enough transport capacity available for the number of people and pets needing to evacuate.
- An evacuation order may require the issuance of a public warning statement.
- The process for determining evacuation routes, evacuation centers, mass care sites, or termination of evacuations may vary based on a specific incident.
- Unique considerations for urban areas are high rises, retail centers, and business districts due to their high population density.
- People may try to evacuate simultaneously by car and on foot, either by directive or spontaneously.
- Evacuation may require the use of coordinated transportation resources.
- Evacuations may stress the limited capabilities of roadways.
- Traffic factors may impact the time it takes to complete an evacuation.
- Pre-designation of evacuation routes is limited to primary arterials, specific routes will be determined at the time of the incident.
- Some people will not receive or understand the notice to evacuate.
- Some people will not have the ability and/or resources to evacuate without assistance.
- Some people will choose not to evacuate.
- An evacuation order may directly impact City staff.
- Pets may be in the evacuation zone, particularly if it includes a residential area.
- Evacuations may be spontaneous without government direction.
- Evacuating populations may include individuals subject to judicial and/or administrative orders restricting their freedom of movement.
- During an incident involving environmental quality issues, such as a hazmat incident, people with compromised immune systems or serious health issues may need additional assistance.
- Pandemic mitigation strategies may challenge evacuation due to limiting the number of individuals who may congregate in an evacuation center or who can simultaneously utilize mass transportation resources.

Concept of Operations

Evacuation Levels

The following evacuation levels can be used as guidelines for determining evacuation support and resource needs and are not intended to be definitive or all-encompassing.

Site Evacuation

- Specific to one defined location or structure
- Short term duration, typically a few hours

A site evacuation may be needed due to a hazardous materials incident, structure fire, bomb threat, police activity, infrastructure failure, or civil disturbance. The impacted population typically includes people, living, working, or visiting the incident location or structure. Evacuation holding times are typically short, and people are permitted to return to their businesses or homes once the hazard has been resolved. This level rarely requires evacuation support such as transportation or sheltering coordination.

Examples: Single resident, retail store, hotel, daycare, single school building, or standalone office building.

Area Evacuation

- More than one specific structure or area, typically includes adjacent sites
- Several hours in duration

An area evacuation may be needed due to a hazardous materials incident, natural gas leak, urban fire, explosion, petroleum pipeline rupture, police activity, infrastructure failure, or civil unrest. The impacted population typically includes people, living, working, or visiting the incident location or area and directly adjacent sites or structures. Evacuation holding times are typically several hours, and some people may be permitted to return to their businesses or homes that were not directly damaged or impacted by the hazard. This level may require evacuation support, such as transportation or sheltering coordination, depending on the specific incident impacts.

Examples: Multi-family dwellings, multiple homes in a neighborhood, multiple school buildings on one campus, or a multi-use office space or retail complex.

Mass Evacuation

- Large area including multiple structures and/or sites
- Displaced for day(s) or longer depending on the incident

A mass evacuation may be needed due to a hazardous materials incident, natural gas leak, urban fire, explosion, petroleum pipeline rupture, police activity, infrastructure failure, terrorism, earthquake, or environmental factors. The impacted population typically includes everyone in the impacted area at the time of the incident. Evacuation holding times are typically more than a day and up to days or weeks. The impacted area is often secured limiting access and most people may not be permitted to return to their businesses or homes until the response phase of the incident has stabilized or is complete. This level will require evacuation support, such as transportation and mass care including sheltering and/or relocation support.

Examples: Multi-family dwellings, entire neighborhood(s), full school campus, multi-unit office or retail complexes, or a designated geographical area of the City.

City-wide Evacuation

- All areas/structures in the City limits
- Extended duration

A City-wide evacuation will exhaust local resources and capability, requiring the implementation of a regional evacuation, reception, and mass care response. The impacted population may include thousands of individuals, with a variety of unique needs, needing evacuation assistance and ongoing support for an extended time. Access to the evacuated area may be limited or restricted for weeks to months.

Evacuation Operations

The sequence of an evacuation can be divided into the following six phases: These phases may occur simultaneously and not specifically in this order.

1. Incident Analysis
2. Warning and Notification
3. Preparation to Move
4. Movement and En Route Support
5. Reception and Support
6. Return/Re-Entry

Incident Analysis

The decision to evacuate will be made on a case-by-case basis by the Incident Commander and/or Emergency Manager. The Incident Commander will contact the OEM for Area, Mass, and City-wide evacuations to coordinate support activities. The Emergency Operations Center (EOC) may activate to support evacuations as needed.

Consideration will be given to the nature, scope, and severity of the incident prior to determining an appropriate course of action. If evacuation is not determined to be feasible or appropriate, the alternative may be to have occupants' shelter-in-place.

Additional considerations may be needed for sustainment of City essential services, critical infrastructure operations, and continuity of government within an evacuation area.

Warning and Notification

Warning and Notification will occur simultaneously with Preparing to Move activities whenever time allows to facilitate the availability of support services for evacuees. However, it is recognized that during an emergent situation, warning and notification may need to occur regardless of support services to protect human life.

A variety of communications methods may be utilized to inform the public of an evacuation, including, but not limited to, door-to-door and in-person notification from first responders, use of the Wireless Emergency Alert/Emergency Alert System (WEA/EAS), digital and broadcast media, community organizations, businesses, road signs, and Public Address systems. Limitations and advantages of messaging to mass populations should be considered as it relates to the specific incident and intended audience. Methods of communicating emergency information to the public include reaching to the whole community and leveraging translation and support resources for persons with Limited English Proficiency (LEP) and/or hearing, visual, or other communication limitations as able.   Communication of evacuation information typically must occur very quickly, thus, the most effective communications methods and tools will be determined at the time of the incident.

If necessary and as resources allow, Police and Fire Department uniformed personnel may conduct door-to-door or drive-through evacuation notices. Field personnel should be prepared to provide residents with evacuation information including why they are being asked to evacuate and where they should go.

The following list may be used as a guideline to conduct door-to-door notifications:

- Notify residents that there is an incident and that they are in danger,
- Advise residents to leave immediately,
- Go to [designated reception center or safe area],
- Take [road or street name or other transportation information] out of the area, and
- Inform residents of available transportation, providing the location of assembly areas if applicable.

Refusal to Leave

Residents that refuse to leave and are determined to be capable of making such a decision will be informed of the danger of staying and encouraged to comply. If individuals continue to refuse to comply with evacuation notices, City representatives will document as much identifying information as possible and note the last known location of the person(s) prior to leaving the area. Refusal situations will be managed on a case-by-case basis, as the City has very limited authority in regard to the forced removal of persons from their residence, unless said person is determined to be incapable of making informed decisions about their life safety and wellbeing.

Preparation to Move

Preparation to Move will occur simultaneously with Warning and Notification whenever possible to facilitate the availability of support resources for impacted persons. However, it is understood that in emergent situations warning and notification may need to occur to protect human life, even if support resources have yet to be established.

Warning and notification should direct the evacuated population to an assembly area, identified as a safe nearby location outside the evacuation area, where people can gather for a short period of time. People typically wait in the assembly area until it is safe to return to their home or business or they can access transportation to longer-term mass care support location.

Preparation to move involves establishing the staffing and resources needed to support the capability for movement of impacted persons. The time available to pre-position resources is dependent on the incident. Whenever time allows, the following considerations should be reviewed as part of planning for movement:

- Transportation modes and resources.
- Evacuation routes.
- Traffic management tactics.
- Identification of critical intersections and other points (e.g. bridges, potential bottlenecks) along evacuation routes to be monitored and/or staffed by field personnel.
- Decontamination of evacuees.
- Opening and coordination of an Assembly Area.
- Activation and coordination of mass care support.
- Selection and deployment of resources to assist mobility challenged members of the population.
- Identification and activation of communications systems to be used.
- Communication of routing and destination information to the public.

Movement and En Route Support

All available modes of transportation will be considered during evacuation operations and prioritized based on the support needs of the population most at risk.

The City will monitor real-time traffic information via technology resources and field reports to support evacuation planning and implementation efforts. Traffic condition information will be shared with the public to allow for planning alternative travel/routing during an incident.

Incident traffic-control may consist of blocking or closing routes into or out of the affected area, which may cause drivers to make impromptu decisions about their direction of travel or destination based on the circumstances.

The City will rely on the existing transportation network to carry evacuees from at-risk areas to safety. When considering traffic control measures, possible options should be reviewed to determine critical characteristics including:

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

Evacuation routes may need to be coordinated between Kirkland and local law enforcement, the Washington State Department of Transportation (WSDOT), and the Washington State Patrol (WSP).

While privately-owned vehicles may be the primary method of transportation for most evacuees, alternate methods of transportation should be considered, on a case-by-case basis, for individuals who are unable to evacuate on their own.

Wherever possible, evacuation assembly areas and mass care locations will be determined before evacuation routes are announced to the public. Evacuation routes will be determined based on the location and extent of the incident and will include as many primary arterial transportation routes as possible. Important roadway characteristics and factors that should be considered when selecting an evacuation route include:

- The shortest route to the designated destination areas,
- Maximum capacity,
- Ability to increase capacity and traffic flow using traffic control strategies,
- Maximum number of lanes that provide continuous flow through or out of the evacuation area,
- Availability of infrastructure to disseminate real-time conditions and messages to evacuees en route, such as variable message boards, and
- Potential hazardous points and bottlenecks, such as bridges, lane reductions, etc.

Traffic conditions should be monitored along evacuation routes and operational adjustments made as necessary to maximize throughput. Adjustments may include the addition of alternative evacuation routes.

Reception and Support

The requirements for mass care support may vary depending upon the nature, type, and severity of the incident. Action items may include the following:

- Establishing reception and/or sheltering sites.
- Providing mass care assistance to vulnerable and/or special needs populations.
- Delivering incident messaging/updates to evacuees.
- Coordinating communications assistance between evacuees and their support systems.
- Facilitating community support resources.

Return/Re-Entry

The decision to return evacuees to an affected area will be based on the safety of evacuees en route to and within the evacuation area. Priorities for reentry include safety, security, damage assessment, restoration of critical infrastructure, and the ability to communicate with the returning population. The impacted areas should be thoroughly assessed and evaluated for safety and risks prior to the residents and/or business owners returning. Procedures should be implemented to properly identify owners and critical support personnel requesting access.

Perimeter control and law enforcement presence may be needed throughout the return/re-entry process. Consideration should be made related to media and general public access specifically addressing the actual need for non-owners to gain access to an incident area.

Transportation resources may need to be coordinated to assist evacuees back to their communities. Traffic management plans may need to be established for the return of evacuees which includes the identification of safe travel routes.

Authorities and References

Policies

Revised Code of Washington (RCW) 38.52 Emergency Management

Pets Evacuation and Transportation Standards Act of 2006

Public Law 99-499, Superfund Amendments and Reauthorization Act (SARA) of 1986, Title III, Emergency Planning Community Right-to-Know Act (EPCRA).

Public Law 110-325 – Title 42 Chapter 126 Americans with Disabilities Act - ADA

References

City of Kirkland Comprehensive Emergency Management Plan (CEMP)