Seattle
Office of Emergency
Management

EARTHQUAKE - INCIDENT OPERATIONS PLAN

CEMP - ANNEX IV DOCUMENTATION

Updated 3/29/2021

Note: This Incident Operations Plan is part of Annex IV of the Comprehensive Emergency Management Plan (CEMP). .

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1. STAKEHOLDERS

Table 1: Primary and Coordinating Agencies

PRIMARY AGENCY	PLAN COORDINATOR
Seattle Fire Department	Seattle Office of Emergency Management

Table 2: Support Agencies

All City Departments	

2. INTRODUCTION

2.1 Purpose

The purpose of this Incident Support Annex is to enable a coordinated multi-department and multi-jurisdictional response to an earthquake. It applies to all City of Seattle (City) Departments and provides information to all partners that support or depend on the City response.

2.2 Scope

This annex is part of the City of Seattle Comprehensive Emergency Management Plan (CEMP). It aligns with the processes and structures described in the CEMP, while providing additional detail on how the City would coordinate its response to a severe earthquake and associated hazards detailed in the Seattle Hazard Identification and Vulnerability Analysis (SHIVA) including aftershocks, tsunami, seiche, landslides, and liquefaction.

This document is a guide which should be adapted as needed to meet conditions at the time of response. For higher level City incident response policies, strategies, and practices, refer to the City Emergency Operations Plan. For additional detail on specific functional efforts, see the CEMP's various Emergency Support Function Annexes.

2.3 Authority

See City of Seattle CEMP—Introduction.

2.4 Limitations

The City will endeavor to make every reasonable effort to respond to an earthquake and related hazards. However, City resources and systems may become overwhelmed by the magnitude of the disaster and its impacts. Additionally, widespread infrastructure impacts may delay outside resources and inhibit the ability to move resources within the City. The guidelines in this plan cannot guarantee that a perfect response to this type of disaster will be practical or possible.

3. SITUATION

3.1 Emergency Conditions and Hazards

The Seattle Hazard Identification and Vulnerability Analysis (SHIVA) identifies Seattle's hazards and examines their consequences to inform decisions about how best to prepare for them. It provides information regarding potential impacts of hazards to the people, economy, and built and natural environments of the City of Seattle. The SHIVA provides the foundation for all of the City of Seattle's disaster planning and preparedness activities. The SHIVA identifies earthquakes as the most serious hazard facing Seattle and provides additional context about the City's seismic vulnerability.

A major earthquake could occur in the Seattle area without warning and at any time.

Possible immediate impacts:
- Large numbers of dead, injured, and missing;
- Multiple structures collapsed or severely damaged;
- Many people trapped in collapsed structures, including elevated structures such as roadways, requiring rescue;
- Multiple fires;
- Damage to fire detection and suppression systems;
- Damage to the waterfront areas and facilities;
- Flooding of waterfront area and around lakes;
- Localized flooding from ruptured water pipes, damaged reservoirs or tanks;
- Interruption of utility services for days or even weeks to include electrical, water, natural gas, solid waste, and sewer;
- Widespread damage to roads and bridges;
- Shortage of water, food, and other commodities;
- Shortage of gasoline and diesel fuel;
- Hazardous materials releases;
- Separated family members including children;
- Lost animals; and
- Isolated neighborhoods.

Complications:
- Overloaded telephone systems (wired and wireless);
- Interruption of commercial television and radio service;
- Disruption of information technology services;
- Diminished healthcare capacity caused by damage to medical facilities and loss of medical supplies and medications;
- Disruption of supply chains for food, fuel, pharmaceuticals, and other critical supplies;
- Reduced access to cash/electronic funds;
- Reduction in emergency service capacity due to injured responders or damage to facilities and equipment; and
- High numbers of City staff unable to make it to work due to personal impacts of the disaster and/or transportation challenges.

Possible long-term impacts:

- Large number of structures, public and private, in need of extensive repair;
- Businesses failing due to economic impacts;
- Increased unemployment and associated loss of income and medical insurance;
- Elevated risk of disease (e.g. natural toxins that can be released from the soil, water supply impacts, etc);
- Increased rates of general illness and mortality;
- Mental health issues due to disaster and aftermath;
- Increased homelessness;
- Long term reduction in infrastructure capacity;
- Decreased tax revenue;
- Decreased residential population; and
- Loss of some seaport customers and other businesses to other regions.

Efficient recovery will minimize these long-term impacts. The City of Seattle Disaster Recovery Framework describes how the City would partner with the community and coordinate with County, State and Federal agencies in recovering from the effects of disaster using a massive earthquake as the premise.

3.2   Planning Assumptions

City Response

City staff and facilities will be directly impacted by a major earthquake—potentially reducing response capacity while simultaneously creating unprecedented demand for that very capacity.

- There are not enough public safety resources in the City to immediately address all, or even a majority, of the life safety needs expected after a severe earthquake.
- Staffing in most City departments varies depending on the time of day. Should an earthquake strike at the time of lowest levels of staffing, the response will be significantly impaired until off duty personnel can respond.
- Many employees will experience significant delays getting to/from home and work due to damaged transportation infrastructure.
- Damage to City owned buildings may impact the ability of City employees to effectively respond.
- The limited capacity for charging electric devices (including vehicles) and the expected high tempo of operations will make it difficult to keep City devices charged.
- Damage to water utility infrastructure will likely impair firefighting.
- Traffic congestion will be significant due to roadway damage which can impact operations such as the establishment of shelters.
- Most City departments either do not stockpile supplies of emergency food and water for responders or if they do, only have a limited amount.
- The City Emergency Operations Center (EOC) will not be able to immediately meet all logistical demands.
- In order to come to work, City staff will need support for their families.
- Initial shelters may be spontaneous, non-traditional, and rudimentary. The City will work to improve shelter conditions in conjunction with other relief activities as soon as possible.
- The City will need to quickly incorporate outside personnel (e.g. building inspectors) and resources into a coordinated response.

Communications

A major earthquake can impact a variety of City-wide communications systems, requiring reliance on alternative information technology or information gathering processes.

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- A detailed and credible common operating picture may not be achievable for 24 to 48 hours, or longer, after the earthquake – response operations may have to begin without a complete or detailed situation and critical needs assessment.
- The 911 phone system, if operating, will be overloaded with no guarantee that the calls that make it through will be the highest priority.
- Seattle Fire Department (SFD) will switch to decentralized operations with each Battalion Chief dispatching resources according to the results of that battalion's windshield surveys.
- During the initial response, the amount of radio use by responders may overload the 800 MHz radio system.
- Alternative communications methods, such as satellite phones and amateur radio, do not have enough capacity to replace all standard communications systems.
- Communications and collaboration methods that depend on the Internet or Information Technology infrastructure may be impacted and compromised by physical damage, overuse and heavy traffic, and possibly malicious use by those hoping to take advantage of the disaster. It may require an extended period of time and extensive resources to return to even a minimal level of availability, function and security.

Logistics

A combination of infrastructure damage and regional impacts may limit the ability to acquire and move resources after a major earthquake.

- Extensive road and bridge damage may require air and marine support for operational and logistical needs.
- The City does not stockpile food or water for the general public.
- The level of personal preparedness by the public is insufficient to significantly decrease the need for public services.
- Many organizations, public and private, routinely use "just in time" ordering and do not generally stockpile significant amounts of supplies; after an earthquake, shortages of critical items, such as medical supplies, are likely.
- Automatic aid and mutual aid from the City's immediate neighbors will be largely unavailable.
- Many individuals and businesses will volunteer to assist with the response; fully leveraging this resource will present operational and logistical challenges.
- Donated goods, solicited and unsolicited, may present a significant challenge to manage.
- Regional impacts and/or other disasters across the nation may limit availability of outside resources.
- Many infrastructure repairs will require custom and/or rare parts that will need to be brought in from long distances, contributing to long lead times for infrastructure restoration.

Coordination

Overwhelming need and impacts to City capacity will require the reliance on partner organizations to an unprecedented degree. Due to potential isolation, this may require work with non-traditional partners and forging new relationships:

- Spontaneous shelters will likely be established by the community and private entities not always in coordination with government.
- The private sector will offer assistance to the response effort and provide services; which will require coordination with the public response.

- Neighboring jurisdictions will also be impacted, limiting the availability of mutual aid, and making it important to coordinate regional response operations through the King County Emergency Operations Center.
- There will be a spontaneous response within the community and among organizations. These ad hoc efforts might not all align with City plans. The City will need to identify these efforts, assess the City's role, and coordinate/communicate ability to support.

Overwhelmed Capacity

While damage and impacts from an earthquake will vary greatly between neighborhoods and sections of the City, the overall impact may overwhelm the capacity of City, partner, and community response efforts:

- Fires are the leading danger immediately following an earthquake due to the expected number of fires, damage to fire suppression systems, damage to water pipelines, difficulty in accessing fire incidents and limited resources.
- Hospitals may not have sufficient capacity to meet the surge in patient demand.
- In addition to damaged residences, the interruption of water, sewer, electrical and natural gas service may increase the number of individuals seeking immediate shelter or assistance following an earthquake.
- The generally cold, wet climate may add urgency to sheltering operations.
- The number of individuals seeking shelter will exceed the City's emergency shelter capacity.
- There is a large population of individuals in Seattle with access and functional needs that must be addressed during disaster response and recovery.
- Social media, when available, will be an important source of information for the general public; however, varying accuracy and currency of social media reports may cause confusion.
- Missing person reports could number in the hundreds to thousands.
- The number of expected deaths will likely exceed the capacity of the Medical Examiner's Office and local mutual aid, which will require the mobilization of federal resources, establishment of temporary morgues, and instructions to the public on fatality management.
- Staffing shortages will not be limited to City staff. All organizations in the City will have staff directly impacted by the disaster and/or unable to get to work.
- Many essential services (e.g. in-home care, meal delivery, etc.) will be disrupted by a major earthquake, further exacerbating existing vulnerabilities.

3.3   Mitigation & Preparedness Activities

Recognizing the City's vulnerability to earthquakes, City staff regularly engage in activities to increase the community's preparedness and reduce its vulnerability. Some of these activities include:

- Developing City-wide, departmental, function-specific, and regional response, mitigation, and recovery plans and procedures;
- Training City staff and partners on their various response functions;
- Conducting exercises to validate and refine plans and training;
- Working to address the hazard posed by Unreinforced Masonry Buildings. Unreinforced Masonry Buildings, typically brick buildings built prior to WWII, are especially vulnerable during earthquakes because the walls and parapets aren't securely tied to the floors and roof;
- Retrofitting City-owned buildings and infrastructure. The City used a 2003 levy to retrofit 32 of the City's 33 fire stations, harden fire hydrants so firefighters can draw water directly out of

eight City reservoirs, place emergency generators at community centers, place emergency supply caches in four areas of the City, and build a new EOC and Fire Alarm Center;

- Upgrading the seismic resilience of infrastructure including:
  - o Conducting seismic retrofitting of bridges and areaways and replacing the seawalls, including the Elliott Bay seawall,
  - o Upgrading Seattle City Light (SCL) facilities including substations and the System Operations Center,
  - o Conducting seismic upgrades to existing Seattle Public Utilities (SPU) infrastructure and designing new facilities meet or exceed current seismic standards,
  - o Creating backup data centers to provide redundancy for the City's information technology (IT) services, and
  - o Improving the capability and adding generators for Priority 1 and 2 shelter sites;
- Applying for grant funding to do seismic and non-structural retrofit of City facilities;
- Sponsoring regular personal preparedness training for staff;
- Maintaining and updating a wide variety of emergency management related service agreements, contracts and memoranda of understanding; and
- Offering home seismic retrofit classes to the community.

Additionally, the City is taking steps to ensure that residents and community members are prepared. The Office of Emergency Management (OEM) trains thousands of community members every year on emergency preparedness. The goal of OEM's outreach and education is to increase people's ability to remain self-sufficient and effectively work with their neighbors during a disaster. OEM's Seattle Neighborhoods Actively Prepare (SNAP) program specifically works with groups of neighbors to provide guidance on how they prepare together before a disaster and respond effectively during a disaster. The organized effort afforded by both Hub sites and SNAP groups can be helpful to the community wide response by providing a framework for sharing information and resources, and addressing community needs. OEM works with Community Safety Ambassadors who serve as bi-lingual cultural ambassadors and community trainers, in order to better engage with many of the City's ethnic communities through language and culture, building trust as well as awareness of natural hazards and personal preparedness. Community Emergency Hubs across the city serve as pre-designated 'hubs' where neighbors can come together to help each other. The hubs vary considerably in the amount that the neighboring community has organized around them. More information about the City's community preparedness efforts, including the hubs, can be found at: http://www.seattle.gov/emergency-management/prepare.

4. CONCEPT OF OPERATIONS

The City will follow the plans and procedures captured in the CEMP, its functional annexes, and supporting procedures. Rather than repeating the content already described there, this annex will highlight how response to a major earthquake will be unique and refer to the other plans as relevant.

There will be significant communications and transportation challenges following a major earthquake, which will hinder centralized coordination and decision-making. The City will strive to reestablish citywide coordination as quickly as possible, though this plan also includes considerations for lack of communications and decentralized decision making in the initial phase of response.

4.1 City Strategy

The City response to an earthquake and all subsequent aftershocks will be a balance between addressing immediate life safety/rescue operations and mitigating the ongoing consequences from the earthquake by providing for the basic needs of the community. Response to a severe earthquake may quickly exceed the capacity of City resources. In order to meet the need, the City will coordinate with governmental and non-governmental partners as well as the community itself to rise to meet the tremendous need.*Incident Management*

The Seattle Fire Department (SFD) will lead the Unified Command structure(s) due to the initial lifesaving priorities of firefighting, urban search and rescue, and emergency medical care. If an earthquake causes significant damage, SFD will decentralize operations by Battalions. Responders may have to make difficult choices regarding where to assign the limited resources available and will prioritize actions with the greatest potential to save the most lives. The operations of the individual Unified Commands/Battalions will be coordinated by the SFD Resource Management Center (RMC), which will reallocate resources among Battalions so that the incidents with the highest likelihood of saving lives across the City will get priority for resources, regardless of which Battalion they are in. Other operational departments (initially police, transportation, public utilities, information technology, amateur radio, and other departments as requested) will have resources report to the Battalions to establish Unified Command and support lifesaving operations. As priorities shift over the course of the incident, the lead department in the Unified Command(s) may shift accordingly.

4.1.2 Consequence Management

Concurrently, designated EOC Department Representatives will report to the EOC and other departmental operations centers (DOC) to begin immediately addressing the cascading consequences of the earthquake (e.g. shelter, food, and drinking water for the community). These City-wide operations will be coordinated through the EOC, which, through any activated DOCs, will oversee all resources not assigned to a specific Unified Command. This may include coordinating some independent response activity such as repairing damage to dams, water storage facilities, or large pipelines, and clearing priority roads. SFD and the other operational department representatives are in the EOC to ensure coordination with incident management.

The EOC will also serve as the central location for coordinating the City's public information and policy-level efforts. The OEM Staff Duty Officer will release the first public message, using the pre-scripted, pre-translated Alert Seattle earthquake messaging, if the earthquake is severe enough to merit activation of the EOC. This message will include instructions to limit travel on roadways, prepare for aftershocks, limit use of the phone system, prepare to be without power, and help neighbors. The Mayor and their

Emergency Executive Board (EEB) will convene at the EOC to issue an emergency proclamation, weigh policy options, and implement emergency powers as needed.

4.1.3   Isolation Phase

A major earthquake could leave the City of Seattle isolated from outside help due to a combination of transportation vulnerabilities and potentially crippling regional impacts. Outside resources, such as equipment, material, and personnel might be delayed or diverted. During this potential period of isolation, the City will leverage the use of all available resources, including those of private and non-profit partners. To the extent possible, these efforts will be coordinated through the EOC which includes Office of Economic Development's (OED) linkages to businesses. It is expected that there will be many independent efforts that the City will attempt to coordinate through public information and outreach. Every effort will be made to enlist the support of the community, according to the needs of the incident. An earthquake that leaves Seattle isolated will likely require community activities such as: encouraging individuals to clear their streets and sidewalks of debris, sharing resources with their neighbors to provide food and shelter to their community, and potentially support life safety operations.

4.1.4   Partnership Phase

Communication and coordination with neighboring jurisdictions and the State will be established as early as possible. The EOC will lead efforts to efficiently coordinate with neighboring jurisdictions and incorporate private sector, State and Federal resources. As resources arrive from outside the City, they will be integrated into response operations as directed in the City EOC Consolidated Action Plan and, where appropriate, individual Incident Action Plans will direct department field/tactical operations. The City will establish logistics staging areas to receive outside resources and community points of distribution (or other means) to distribute them across the City. The City will need to integrate private sector logistics support to help manage the influx of resources. City departments should plan on overseeing large numbers of incoming mutual aid personnel.

4.2   Earthquake Response Priorities

As with all incidents, the City's response priorities will be life safety, incident stabilization, and protecting property and the environment. In a major earthquake the City may not have resources to address all immediate life safety needs (controlling fires, providing emergency medical care, conducting rescues, etc.), so responders will prioritize actions that have the greatest chance of saving the most lives.

4.2.1   Adjusting Incident Priorities

In a major earthquake, there is a close tie between critical infrastructure and life safety—timely restoration of critical infrastructure will help ensure the viability of life safety operations. As the incident progresses after an earthquake and subsequent aftershocks, activities that may have previously been classified as incident stabilization (for example providing shelter, food, and potable water) may elevate to life safety concerns. The City will initiate critical incident stabilization tasks concurrently with life safety operations. Resource allocation will continue to be evaluated between various incident missions according to the greatest number of people who could be saved. These prioritization discussions will occur in the EOC Operations Section, with guidance from the EOC Director and input from other subject matter experts, including the RMC and EOC Planning and Logistics Section Chiefs, as needed. The priorities will be incorporated into the objectives and tasks captured in the EOC CAP. If the EOC Operations Section is unable to agree upon priorities or is in need of policy support for proposed actions, they will elevate the discussion to the Emergency Executive Board.

4.2.2   Community Lifelines

Achieving incident stabilization will require coordinating the repair and restoration of complex systems with many interdependencies. The National Response Framework includes seven Community Lifelines, which describe the systems essential to human health and safety and necessary to enable the continuous operation of government functions and critical business. These lifelines help incident personnel prioritize, sequence, and focus response efforts towards maintaining or restoring the most critical services and infrastructure. The Community Lifelines are:

- Safety and Security
- Food, Water, Shelter
- Health and Medical
- Energy (Power and Fuel)
- Communications
- Transportation
- Hazardous Materials

The status of these lifelines will help decisionmakers develop operational priorities and identify gaps and limiting factors to addressing those priorities.

4.3   Initial City Objectives For Earthquake

The City has captured anticipated initial objectives and tasks in the EOC Consolidated Action Plan (CAP), included as Appendix 1 of this plan. The CAP reflects incident management efforts such as controlling fires, providing emergency medical care, and conducting rescues, as well as consequence management activities such as sheltering and food and water distribution.

Initial City objectives provide a starting point for the response and will be modified as needed:

- Develop and maintain situational awareness to ensure unity of effort in City response and recovery operations;
- Support a City-wide strategy for firefighting, emergency medical service, rescue and hazardous material response with Seattle Fire Department as the lead agency;
- Execute a damage assessment plan;
- Stabilize essential lifelines to support City operations and the community;
- Establish shelter capacity in coordination with regional efforts;
- Provide timely and reliable information to the public about response and recovery efforts and protective actions; and
- Identify and address policy issues in a timely manner.

4.4   Immediate Response

Many departments have their own triggers for assessing infrastructure or activating other parts of their earthquake plans. Although shaking can vary widely across the City and region, in general, if staff experience an earthquake that causes pictures to swing out of place or objects to fall off shelves in their homes or places of work, they should assume a City-wide response is underway and respond accordingly. Additionally, staff who live a considerable distance from the City might not feel any shaking at all. These staff may initially become aware of the earthquake due to media reports or a staff notification. The following protocol should be followed once staff are aware of a significant earthquake in Seattle:

- **EOC Department Representatives and Office of Emergency Management** staff should automatically respond to activate the Emergency Operations Center, *unless they receive notification telling them otherwise.*
- **All other staff should follow the processes in their Departmental Continuity of Operations Plans (COOP).** COOP plans describe how staff should notify their department on their status/availability and when/where they should report to work (e.g. whether they should come in immediately, wait until their next normal shift, or plan to work from an alternate site). Staff whose responsibilities require them to physically come in, but who are unable to make it to their designated reporting location, should report to the nearest City workforce rallying point.

4.4.1 Workforce Rallying Points

Given the potential for severe transportation and communications challenges after a major earthquake, the City has designated "Workforce Rallying Points" across the City. Staff who know their assignments and have the resources they need to conduct them should report directly to their assignment, not to a rallying point. City personnel who are *unable to make it to their designated emergency work location* should report in to one of the below City workforce rallying points:

- Northwest (North of canal, west of I-5): North Transfer Station
- Northeast (North of canal, East of I-5): Lake City Service Center
- Central (West of I-5, East of Magnolia and West Seattle): Seattle Center
- West: South Seattle Stadium/Camp Long
- Central East (South of the canal, North of 90, east of I-5): Cal Anderson Park Shelter House
- South East (South of I-90, east of I-5): Jefferson Park Community Center
- Magnolia: Magnolia Community Center

The rallying points will serve as a check-in location for City staff who are unable to connect with their department chains of command for assignments and/or the resources they need to implement their assignments. An amateur radio operator will report to each rallying point, allowing communications with the EOC in even the most austere circumstances. At the rallying points, staff will be assigned to support the highest priority mission within their skillset, regardless of their department—this may involve an assignment working directly for a Unified Command at a Battalion station, or supporting a consequence management mission coordinated through a departmental DOC or the EOC.

4.5 Initial Response Operations

Immediately after an earthquake, communications and transportation challenges may necessitate decentralized operations. Below are the initial response priorities of each of the departments with field responsibilities necessary to protect lives and property. These priorities will likely be refined (e.g., as EOC staff gain understanding of where damage is concentrated and where shelters need to be established, they will prioritize the clearing of certain roads over others). Staff and resources assigned specific missions under a Unified Command or in support of other departments should follow those assignments. However, these priorities can help field personnel prioritize initial actions during the chaos of early response.

- Seattle Fire Department (SFD) – Prioritize actions with the greatest potential to save the most lives and prevent conflagrations.
- Seattle Public Utilities (SPU) – Preserve and move water to support firefighting operations.
- Seattle Police Department (SPD) – Support the Fire Department's lifesaving operations.

- Seattle Department of Transportation (SDOT) – Assess the transportation infrastructure with the priority of restoring lifeline routes.
- Seattle City Light (SCL) – Protect electrical infrastructure to make it safe.
- Seattle Parks and Recreation (SPR) – Prepare shelter sites, support life safety missions with heavy equipment.
- Seattle Department of Construction and Inspections (SDCI) – Initiate inspections of critical facilities, including rally points.
- Finance and Administrative Services (FAS) – Ensure care of shelter animals, stabilize FAS-owned building systems, and manage the City's fuel supply.
- Public Information – express empathy, share only confirmed facts, state what you don't know, confirm what the City is doing, and guide people to where they can find more information.
- Office of Emergency Management (OEM) – Assess the situation and establish coordination with City departments and leadership and neighboring jurisdictions.
- Seattle Information Technology (IT) – Provide operable first responder communication capabilities
- Human Services Department (HSD) – Assess contract agency status and status of high-risk Aging and Disability Services case management clients.
- Public Health Seattle King County (PHSKC) – Determine public health and healthcare agencies operational statuses and assess their abilities to provide critical services.

4.6   Common Operating Picture

The initial common operating picture will be imperfect due to the many challenges that follow an earthquake. The EOC will consolidate information from a variety of sources, including: windshield surveys conducted by the Fire Department with the support of the Police Department, functional assessments by operational departments, and early reports on media outlets and social media. As a more comprehensive understanding of damage to infrastructure and community impacts emerges, the EOC will revise the initial objectives and priorities reflected in the EOC CAP.

The EOC Planning Section is responsible for gathering, analyzing, and disseminating information about damage and response efforts citywide. Damage reporting and system assessments begin immediately after the earthquake and may take days to complete. Some cannot be done at night. Following an aftershock, these may have to be repeated. Sources of damage information include:

- Windshield Assessments - A rapid survey for fires, damage and the injured conducted by Seattle Fire Department personnel, with the support of Seattle Police personnel as available, immediately following the earthquake which provides an overview of damage to the City and identifies priority life safety missions.
- 911 - The public will report damage through the 911 system, which can provide insight into damage across the City, but should not be considered comprehensive nor necessarily representative of damage. The 911 system will almost certainly be overwhelmed immediately after an earthquake, and there is no guarantee that the calls that do make it through will be the highest priority calls.
- News Media - Functioning media will report on damage and impacts soon after the earthquake, though historically these reports tend to focus on a few hard-hit areas and may not provide a comprehensive picture of damage across the City.
- Social Media – immediately after the earthquake, social media users with internet connectivity will begin to collect, organize and post damage information which can include text descriptions, maps of damaged locations, and photographs or video. These may include some misleading or

false posts, but overall social media has the potential to be a great source of situational awareness for the City.

- Rapid Building Evaluations - Information about damaged buildings may come from a variety of sources with varying levels of detail. Many departments will provide initial evaluations to determine building occupancy and structural integrity. SDCI, SPR, FAS, SCL, SPU, Seattle Center, and private sector engineering and architecture firms have staff trained to conduct Applied Technology Council post-earthquake safety evaluations. SDCI has signed memorandums of understanding with FAS, SPU and Seattle Center granting them the authority to post "advisory tags" to communicate the safety status of a building, but only SDCI has the legal authority to place official placards limiting the lawful use of a building.

- Infrastructure Inspections - Inspection of critical infrastructure such as roads, bridges, pipelines by specially trained individuals (SCL, SPU, SDOT, Puget Sound Energy, Enwave, Hospitals).

- Aerial Survey – A number of regional partners, including King County Sheriff Office Guardian One, Snohomish County Sheriff's Office, Pierce County Sheriff's Department, and Washington State Patrol, can provide a helicopter survey of the City with video downlink.

Neighboring jurisdictions will also conduct damage assessments and provide them to the King County Emergency Operations Center. The EOC Planning Section will reach out to King County to obtain damage information that is relevant to situational awareness in Seattle. Additionally, some information will be exchanged between specific sectors, such as between City Light and Bonneville Power Administration, University of Washington, and Port of Seattle.

SDCI will prioritize which buildings to evaluate based on an established list of critical City buildings and the City objectives in the EOC Consolidated Action Plan. EOC responders will need to communicate any additional, incident-specific facilities that need priority evaluation (e.g., potential shelter sites).

4.7 Direction, Control, and Coordination

In order to meet multiple concurrent priorities, City operations will follow two concurrent tracks: Incident Management and Consequence Management.

4.7.1 Incident Management

SFD will lead incident management activities focused on life safety operations: firefighting, search and rescue, emergency medical services, and significant hazardous materials incidents. In order to address multiple concurrent life safety issues with the expected impacts to transportation and communications infrastructure:

- The Fire Department will decentralize operations if the earthquake results in significant damage, with each of the City's five Battalions serving as an independent Unified Command.
- The Incident Commanders in each Battalion will determine priority incidents within their response area, and how to allocate the Battalion's resources among them.
- The Incident Commanders may have to commandeer private resources and may have resources from other departments assigned to them. Nevertheless, in a major earthquake, they will likely have to make difficult decisions when assigning limited resources.
- Individual Battalions will communicate their priority incidents and resource requirements to the Fire Department Resource Management Center (RMC).
- Representatives from SPD, SDOT, SPU, IT and Auxiliary Communications Services (ACS) will deploy to each Battalion station to establish Unified Command and support lifesaving activities.

The RMC will serve as an Area Command to improve coordination and support to multiple incident commands (Battalions). The RMC will focus on:

- Rebalancing resources among Unified Commands,
- Recalling staff, staffing reserve resources, and
- Allocating critical resources from within SFD's supplies.

Any requests the RMC makes for resources coming from outside the City should be coordinated with the EOC.

City Emergency Operations Center

The EOC will be responsible for citywide strategy, support and coordination.

- Coordinate with King County Emergency Operations Center, State Emergency Operations Center and other jurisdictions in the region.
- Coordinate mutual aid requests from departments.
- Produce and share Snap Shots and Situation Reports to keep partners informed of incident status.
- Produce and update the EOC Consolidated Action Plan, which is the citywide plan for disaster response operations.
- Type I, II, or III Incident Management Teams may be used to augment command and control staff as needed. All City and non-city responders will conduct operations under the City Consolidated Action Plan, a specific Incident Action Plan, or both. The EOC will work with departments to define Areas of Operation or Responsibility.
- The EOC Joint Information Center will coordinate all City public information activity. The Joint Information Center will participate in the Regional Joint Information System.
- Coordinate decision making for consequence management functions and ensure consequence management priorities (developed by the EOC) align with incident management priorities.
- Plan for recovery as soon as possible and in parallel to response operations.
- Coordinate plans and logistics to coordinate with and incorporate private sector, State and Federal resources.

Department Operations Centers

While the EOC provides overarching interdepartmental guidance, many departments have operations centers which more directly oversee departmental resources and the implementation of departmental missions, in coordination with the EOC. In general, these Department Operations Centers, or DOCs:

- Direct coordination of departmental assets not assigned to an incident command.
- Coordinate directly with the EOC to share resources in support of overarching City priorities and objectives.
- Mobilize key department resources to coordinate response and communications to the incident.
- Perform detailed assessment of operational impacts to restore department's mission essential functions and reestablish critical facilities.

4.7.2 Emergency Executive Board

The Emergency Executive Board is composed of the Mayor, Mayor's Office advisors, and department directors who provide policy advice to the Mayor.

- The Emergency Executive Board will convene as needed to resolve policy issues that arise during the response.
- EOC Responders in the City EOC are expected to identify and report policy issues that require the assistance of the Mayor and the Emergency Executive Board.

4.7.3 Community Response

In the aftermath of a major incident, when City services and infrastructure are damaged or interrupted and City responders overwhelmed, community members will likely have to rely on each other and those around them to address their immediate needs. Community Emergency Hubs serve as pre-designated places where neighbors may initially come together to help each other. There are 145 "hubs" throughout the residential and commercial parts of City. The hubs include 98 P-Patch Community Gardens and other private or public outdoor locations. At a number of hubs, the community has organized in conjunction with the City's amateur radio network.

The Office of Emergency Management has trained thousands of individuals and neighborhood groups how to respond to their own needs and those of their families and neighbors through the Seattle Neighborhoods Actively Prepare (SNAP) program and other venues. A SNAP-trained neighborhood is more likely to have supplies of food, water and other essentials on hand, and people trained and practiced in providing first aid, and seeing to the needs of their family and neighbors in an organized fashion. The organized effort afforded by both Hub sites and SNAP neighborhoods can be helpful to the community-wide response by providing information about local conditions and needs, and organizing teams to assist with response and relief operations.

In addition to the hub sites and SNAP neighborhoods, after a major earthquake there will likely be spontaneous response efforts by community members and organizations across the City. Many of these efforts may be confined to the initial response (e.g., transporting injured people to hospitals or helping perform light rescue), but others may be sustained efforts (e.g., emergent shelters). The EOC will work to identify ongoing community-run efforts in order to better communicate and coordinate. Additionally, the Joint Information Center may release public messaging to help inform community-run efforts (e.g., sanitation guidance). This will be done in accordance with the overall incident public information strategy, and will consider available, accessible communication methods to determine the best way to get the information out.

4.8 Responsibilities

4.8.1 Emergency Support Function (ESF) 1 - Transportation (Department of Transportation)

- Determine if Seattle Department of Transportation resources are needed to support life safety priority operations.
- Prioritize Department resources on delivering mission essential functions.
- Assess the transportation system for damage.
- Close bridges determined to be unsafe using any available means.
- Support clearing ingress and egress roadways to local hospitals, blood bank, other high priority healthcare locations and major incident scenes as needed.
- Use Department mapping systems to document status of roads.
- Provide updates on the status of the road network.
- Clear ingress and egress routes to shelter locations based on a priority determined by the EOC Operations Chief.

- Provide EOC Operations Section Chief with strategies for repairing and restoring the transportation system.
- Coordinate with other transportation agencies in the region to determine status of roads and bridges outside of Seattle and the status of transportation services.
- Consider forming an Emergency Bridge and Road Repair Task Force to coordinate rapid repair efforts.

4.8.2 ESF 2 - Communications (Seattle Information Technology Department)

- Assess information systems for damage and determine capability to provide services.
- Provide EOC Operations Section Chief with a recommendation for service restoration and estimate time to complete such restoration.
- Support the EOC Operations Section Chief in determining the strategy for radio patching, radio reprioritization, Cell on Wheels\Switch on Wheels requests, and allocation.
- Monitor 800 MHz system use and notify the EOC Operations Section Chief of any decrease in functionality.
- Conduct damage inspection of 800 MHz facilities and equipment.
- Report fuel consumption\refueling need of 800 MHz generators to the EOC Logistics Section.
- Coordinate transport of radio system repair parts and teams with the EOC Logistics Section.
- Office of Information Security to consult on the security and reliability of data being received and methods of communications and collaboration that might be in place around an incident.
- Coordinate with local telecommunication providers to support emergency requests for repair or augmentation of phone or internet service to critical functions and locations such as the EOC, dispatch centers, other critical infrastructure or incident scenes.

4.8.3 ESF 3 - Public Works and Engineering (Seattle Public Utilities)

- Isolate portions of waters systems which can be done-so expediently, so as to conserve water storage.
- Release public messaging about water and sewer systems.
- Assess water, wastewater, and solid waste infrastructure for damage and determine capability to provide services.
- Advise the Fire Department representative and the EOC Operations Section Chief immediately if unable to supply water to fire department firefighting operations.
- Determine if Seattle Public Utilities construction equipment and personnel are needed to support life safety priority operations.
- Provide the EOC Operations Section Chief with a recommendation for service restoration and estimate time to complete such restoration.
- Deploy alternate water supply and distribution.
- With assistance from Public Health Seattle King County and the EOC Logistics Section, develop plan for providing sanitation in areas without sewer service.
- Seattle Department of Construction and Inspections has the following roles under this ESF:
  o In coordination with The EOC Operations and Planning Sections, revise and set Rapid Evaluation Priority List.
  o Contact Public Health representative to determine initial survey status of hospitals and incorporate the following locations, as needed, into updated Rapid Evaluation Priority Plan: Harborview; Swedish; Children's; University of Washington; and Providence.
  o Work with the EOC Logistics Section to request mutual aid Building Inspectors.
  o Share building damage information with the EOC Planning Section.

- o Conduct building damage assessments and brief Emergency Executive Board on potential issues surrounding red and yellow placarded buildings.
- o Assist Joint Information Center supervisor in developing public messaging about building evaluations.

4.8.4 ESF 4, 9, 10 Firefighting, Search and Rescue, Hazardous Materials (Fire Department)

- Establish Area Command and continue to expand the Incident Management System as resources allow.
- Provide ongoing situation report/summary of windshield assessment to City departments and EOC as described in the Essential Elements of Information plan.
- Fight fires, provide emergency medical services, rescue trapped persons, and address hazardous materials incidents.
- Communicate support requirements to other departments to support Life Safety operations.
- Coordinate between the RMC and EOC.
- Assign a liaison to the Disaster Medical Control/Coordination Center, coordinate treatment and transportation options.
- Recall and assign all available off duty personnel.
- Conduct resource planning to sustain ongoing response efforts.
- Develop specific mutual aid requests.
- Deploy mutual aid resources.

4.8.5 ESF 5 - Emergency Management (Seattle Office of Emergency Management)

- Activate and manage the EOC.
- Develop and disseminate City Objectives, EOC Schedule, Priority List for Rapid Evaluation, Consolidated Action Plan, and Essential Elements of Information.
- Ensure appropriate staffing of EOC leadership positions.
- Be the point of contact with County regional, State, Federal emergency management partners and designated non-governmental organizations.
- Coordinate the citywide response and promote unity of effort in response and recovery.
- Through the Law Department, ensure the issuance of an emergency proclamation, development of emergency orders, and general legal advice.
- Coordinate ACS volunteers across the City.
- Assign EOC liaison to the RMC to collect and share windshield survey information with all EOC Responders.

4.8.6 ESF 6 - Mass Care, Housing, and Human Services (Seattle Human Services Department and Seattle Parks and Recreation)

- Determine strategy for sheltering, feeding, and other mass care services.
- Identify populations that may have a disparate impact and any support strategies needed, and if needed, form a Vulnerable Populations Task Force to coordinate response.
- Identify how many people are estimated to be displaced due to housing loss and locations.
- Check with Seattle Public Schools on whether they have students and staff that are sheltering on site and any support needed.
- Assess Animal Shelter and fleet for viability and injured animals.
- Assess what human services providers are closed or at reduced capacity and the impact this will have to people relying on these services.
- Work with Public Health to coordinate reunification points of contact.

- Develop plan for helping non-residents find shelter and/or transportation means to return home.
- If food supplies are disrupted, form a feeding task force to address and coordinate food priorities including shelter meals, congregate meals and CPODs.
- Identify what mutual aid is needed and submit requests to Logistics.

Sheltering:

- Form a shelter task force to develop a shelter strategy that includes identifying which shelter sites to use, whether to implement soft-sided shelters, and obtaining resources and staff for sheltering.
- Implement the Seattle Animal Shelter's Pet Sheltering Plan to coordinate with the human shelter strategy.
- Assess through SCL and SPU whether utilities are available at priority shelter sites.
- Request SDCI to inspect sites identified for sheltering and pet sheltering.
- Establish contact with King County EOC ESF #6, Shelter Task force and/or Feeding Task Force.
- Request shelter and food support from the American Red Cross and estimate how long it will take for support to start arriving.
- Request King County Public Health environmental health support for shelters/congregate meals and Medical Reserve Corps support for shelters.
- Determine if shelter and feeding support needs to be requested from the Federal Emergency Management Agency (FEMA).

4.8.7 ESF 7 – Logistics & Resources (Seattle Finance and Administrative Services)

- Serve as the single ordering point for County, State and Federal resources.
- Establish policy for resource ordering –single point or department for specific resources.
- Determine mutual aid already requested by departments.
- Manage city-owned fuel sites and coordinate the City fuel supply inventory with contracted fuel providers.
- Establish contact with King County Emergency Coordination Center Logistics Section.
- Assign Liaison to King County Emergency Coordination Center Logistics to assist with processing resource orders from Seattle.
- Establish and coordinate operations of logistics staging areas, community points of distribution, incident bases, responder camps with partner agencies and contracted providers.
- Coordinate directly with Logistics counterparts at King County Emergency Operations Center and State Emergency Management.
- Manage unsolicited donations with partner agencies and contracted service providers.
- Within the Logistics Section, SDHR will coordinate management of unaffiliated volunteers and reassignment of city employees.

4.8.8 ESF 8 – Health, Medical, and Mortuary (Public Health Seattle & King County)

- Determine public health and healthcare agencies operational statuses and assess their abilities to provide critical services.
- Coordinate with response partners to prioritize infrastructure needs for critical healthcare facilities.
- Produce public information to mitigate health and environmental safety risks.
- Establish policy and provide guidance to healthcare systems to manage medical surge.
- Coordinate patient movement and patient tracking operations.

- Provide estimates of injured and deceased persons.
- Establish an alternate care system for sites for low-acuity patients.
- Coordinate with response partners to conduct health screenings and identify medical needs of the population registering at shelters or congregate locations.
- Coordinate with response partners to ensure basic health services are provided at shelters or congregate locations.
- Coordinate with response partners to conduct health surveillance and monitor environmental health and safety at shelters or congregate locations.
- Coordinate with response partners to conduct food and water safety inspections at shelters or congregate locations.
- Coordinate with response partners to provide veterinary care for service animals and household pets at shelters or congregate locations.
- Coordinate with response partners to provide psychological first aid to affected populations.
- Coordinate with response partners to provide mortuary services including decedent identification and disposition.
- Coordinate deceased animal disposal.

4.8.9   ESF 12 - Energy (Seattle City Light)

- Determine if Seattle City Light construction equipment and personnel are needed to support life safety priority operations.
- Assess Seattle City Light critical infrastructure for damage and determine service ability.
- Provide the EOC Operations Section Chief with a recommendation for service restoration and estimate time to complete such restoration.
- Repair and restore electrical service to City Light customers.

4.8.10 ESF 13 - Public Safety and Security (Seattle Police Department)

- Assess Seattle Police Department facilities for damage and determine ability to provide services.
- Assign two officers to each Fire Battalion to establish Unified Command with the Battalion Chiefs.
- Provide situation report/summary of windshield assessment to City departments and EOC as described in the earthquake communications plan.
- Assign team to Harborview Medical Center to establish contact with Disaster Medical Control Center and to provide traffic control to support ingress/egress to the Center.
- Assign Liaison to RMC until the EOC activates. When requested, assign officers to locate missing fire units or to act as runners should Fire Department communications fail.
- Assist with commandeering of critical resources such as fuel.
- Assist Fire Department with emergency evacuations.
- As resources permit:
    - Maintain law enforcement service throughout the City;
    - Conduct high visibility emphasis patrols;
    - Prioritize calls at shelters, Family Assistance Centers, Alternate Care Facilities, Temporary Morgues and other locations as needed;
    - Provide crowd control or ingress and egress traffic control at major incidents scenes and/or hospitals;
    - Support the closure of bridges deemed unsafe by Seattle Department of Transportation bridge inspectors; and
    - Conduct additional windshield assessment in the event of a major aftershock, the Fire

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Department resources may not be available to conduct a citywide survey once they are committed to response operations.

- With Public Health, joint responsibility for investigating deaths and locating missing persons. This could include: staffing the Missing Person function in Family Assistance Center and providing estimates of the number of missing.

4.8.11 ESF 15 - External Affairs (Mayor's Office)

- When the EOC is activated, all department Public Information Officers become direct reports to the Mayor's Office through the Joint Information Center supervisor.
- In coordination with the EOC Operations Section, ensure public messaging related to life safety issues is initiated as soon as possible.
- Activate City emergency web page.
- With the EOC Planning Section, review Snapshots and Situation Reports, Press Releases and Consolidated Action Plans for accuracy prior to publication.
- Provide responders with written daily summary of disaster related services, where those services can be obtained, hours of operation, and contact information. Every City employee and responder is seen by the public as source of official information about the disaster and what the City is doing.
- Coordinate with the EOC Logistics Section on donations public messaging.
- Prepare for a large, national and international media presence following the disaster. Designate an alternate location for press conferences in anticipation the Media Briefing Room in the EOC may not have sufficient capacity and coordinate with the EOC Logistics Section.
- Work with the EOC Operations Section to integrate public messaging events into the EOC planning cycle.
- Develop a communications plan to reach residents using available technology and incorporating the need to provide content in an accessible means that can be understood by the impacted population.
- Identify and acquire/activate resources for ongoing translation and interpretation needs.
- Monitor social media to address rumors and share relevant damage information with the EOC Planning Section.

4.8.12 Transition to Recovery (Seattle Office of Emergency Management)

A significant earthquake will require the City to activate its Disaster Recovery Framework to fully engage and coordinate the whole community while restoring the economy and rebuilding the city. This process will take years but should begin concurrently with response. In order to better coordinate short-term recovery issues and ease the transition to long-term recovery operations and planning, the City will need to stand up recovery coordination groups, assess the impact to the community, and identify/pursue financial options. Specifically, the City will:

- Stand up and coordinate staffing of a multi-department/agency Recovery Coordination Group to manage early and short-term recovery.
- Bridge to the activation of the full Community Recovery Task Force for larger scale events and/or long-term recovery operations, as described in the Seattle Disaster Recovery Framework.
- Anticipate recovery efforts needed, including addressing damage to buildings and infrastructure, unmet community needs, assistance centers, business outreach, sheltering and re-housing, behavioral health support, donations management, use of volunteers, public information, service restoration, etc.

- Immediately begin the process of assessing damage, tracking City response and repair costs, and estimating the scope and costs for permanent repairs. Factor mitigation into repair designs.
- Consolidate city cost estimates to submit to FEMA in support the City's request for a Presidential Disaster Declaration.
- Gage impacts on the community and pursue assistance available to residents from FEMA, non-profit, and private sector partners.
- Coordinate with State and Federal partners on requests for disaster recovery assistance programs to offset public and private response and repair costs, including FEMA Public Assistance for government entities, FEMA Individual Assistance for residents and businesses, and the Federal Highways Administration for arterial roadways repairs.
- Pursue all available insurance reimbursement.

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5. RESOURCE REQUIREMENTS

A major earthquake and subsequent aftershocks might isolate the City from outside resources, due to infrastructure impacts, widespread regional impacts, or a combination of the two. The City's logistical operations will have different priorities and challenges depending on whether outside resources are available ("Partnership Phase") or not ("Isolation Phase").

Logistics in Isolation

Immediately after a major earthquake, staff will use whatever resources are available, regardless of ownership, during this phase of extreme resource constraint.

Incident Management Activities: Unified Command Posts, established at the Battalion Stations, will coordinate resources within their battalions, and will submit requests for additional resources through the RMC, which will serve as Area Command over all incident management activities. Area Command will coordinate with the EOC to obtaining additional resources from other departments.

Consequence Management Activities: The City rallying points will serve as initial collection and distribution points for City personnel and equipment. Rallying points that are operational before the EOC and DOCs are staffed will have to make do with the resources available at the Rallying Point and within the community. As the EOC and DOCs fully activate, they will assume a centralized resource ordering and distribution function. The EOC and DOCs will coordinate with workforce rallying points and yards to redistribute resources among consequence management activities.

The RMC will coordinate with the EOC for reallocating resources between incident and consequence management activities and provide strategic direction and decision making. Incident resource distribution will be done according to the incident priorities and community needs, acknowledging that neighborhoods that were resource poor prior to the earthquake will almost certainly have greater needs afterwards.

During the Isolation phase, the Logistics section will prepare for the eventual receipt of outside resources by identifying helispots, staging areas, and distribution points based on accessibility and need.

Logistics in Partnership

The response to a major earthquake will require a tremendous amount of outside resources. Logistical priorities will include: receiving and distribution operations, setting up and operating equipment staging, temporary storage, community points of distribution, and engaging local final mile delivery industry.

Once resource pipelines are established, every operational department will have a role in managing the surge. The Logistics Section in the EOC will work with City departments to order and distribute resources from:

- Local, state or federal agencies
- Private vendors and contracted service providers
- Non-Profit Organizations
- Private Sector
- Individual contributions

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5.1   Logistical Support

The logistics requirements in response to a major earthquake will exceed the resources available by an order of magnitude. Coordinating the resources necessary to sustain the response and recovery will involve many links (including operations centers, cross docking facilities and staging areas) and lots of moving parts. These disconnected parts must integrate and work together under three primary logistics strategies: Resource Management, Movement Coordination, and Distribution Management. The ESF 7 Annex describes these strategies in more detail, and the following section focuses on what will be unique after a major earthquake.

5.2   Resource Management

5.2.1   Ordering Resources

The departments follow normal processes to exhaust available resources. It may take a while to establish the EOC Logistics Section—departments will make do with what they have, work with the community to identify alternative sources, and hold their requests. Even once the Logistics Section is established and operating according to the process in ESF #7 Annex, it may be some time before orders get processed, due to communications limitations, overwhelming demands, and isolation issues.

Ordering Specialized Resources

Departments will obtain specialized resources using established department procedures, agreements and existing contracted vendors. When specialized resources require logistical support such as fuel or food, the ordering department must immediately notify the Emergency Operations Center Logistics Section.

When a special resource cannot be obtained, the department will complete a City Resource Request in WebEOC Resource Tracker or fill out a 213RR. The department will work with the EOC Logistics Section to order specialized resources, either through a subject matter expert embedded within the Logistics Section or through close coordination to ensure the order's accuracy.

Hospitals and other health care providers are responsible for ordering their own medical supplies, with Health and Medical Area Command (HMAC) providing assistance as needed. On behalf of the medical community, HMAC serves as the single point of ordering for County, State and Federal government resources and works in concert with Northwest Hospital Response Network (NWHRN). Logistical support for mutual aid medical teams will be the responsibility of HMAC. Local Emergency Operations Centers, including Seattle, are responsible for non-medical resource requests from healthcare providers.

5.2.2   Ordering Regional Shared Resources

The City will seek resources from other jurisdictions when shortfalls cannot be met internally. The EOC Logistics Section will push requests up to the King County Emergency Operations Center. The EOC Operations Section will prioritize these resources requests according to the incident priorities. The Logistics Section will clearly communicate these priorities to King County.

5.2.3   Facilities

Departments with damaged facilities should look first to the alternative sites delineated in their departmental Continuity of Operations (COOP) plans. If these alternatives sites are also damaged or otherwise unsuitable, the department should provide a needs assessment to the EOC Logistics Section, who will coordinate with FAS. The FAS DOC will work with the departments to evaluate appropriate

facilities and do the acquisition and lease management. Given the extreme need post-earthquake, this may not be an expedient process, which is why it is important for departments to pre-identify facilities to the extent possible. The EOC will work with the FAS DOC to prioritize among facility requests, if needed.

When a department requires additional facilities to support a surge in operations (example: mutual aid strike teams, task forces, contracted service providers, staging areas, and command posts), they should submit a City Resource Request that describes the type of facility needed, intended use of the facility, number of occupants etc., to the EOC Logistics Section. The Emergency Operations Center Logistics Section will coordinate the identification and assignment of additional facilities.

5.3   Movement Coordination

Moving resources into and around the City will require the unprecedented reorganization of current transportation capacity to create delivery capabilities and authorities. Early on in the incident, the EOC Logistics Section will evaluate conditions of the City's resource providers and transportation in all parts of the City. As the incident progresses, this work will expand to explore supply chain impacts on the community at large, beyond the City's providers.

Conditions will vary greatly, plans in different sections of the city may vary greatly, but all will share the goal of reestablishing the delivery of resources to the people who need them. The EOC Logistics Section will work closely with SDOT and other ESF #1 partners to assess the status of the infrastructure and explore multi-modal alternatives.

The EOC Logistics Section with support from partner agencies, vendors, and services will facilitate the delivery of resources into the city to include:

- Assisting to secure helipad access and other aircraft staging;
- Coordinating with Defense for Civil Authorities (DSCA) capabilities involving resources via the US Department of Defense;
- Coordinating with the County and the State to move freight through adjacent impacted areas following credentialing protocols;
- Coordinating with marine resources, to assist with the movement of resources; and
- Arranging security for transportation of inbound resources.

5.4   Distribution Management

5.4.1   Staging Areas, Camps, and Bases

Before the Emergency Operations Center Logistics Section is activated, departments establish Staging Areas, Camps and Bases as needed. When the Emergency Operations Center Logistics Section is activated it will determine which of those Staging Areas, Camps and Bases it will assume responsibility for and which will be maintained by departments.

The logistics staging areas (LSAs) augment existing emergency supply chains and expands the City's ability to manage a surge of critical commodities, supplies and equipment into the City. Available resources received into the LSAs are then assigned by the EOC to a specific Unified Command Post or to support a consequence management mission and deployed into the field.

The LSAs operate in concert with similar county and state operations. The State of Washington has designated specific locations as State Staging Areas. EOC Logistics Section will coordinate with the State on the establishment and operations of these sites.

5.4.2 Community Points of Distribution

The EOC Logistics Section in coordination with ESF #6 is responsible for establishing, supplying and operating all Community Points of Distribution (CPOD) for food, water, and other commodities. The purpose of CPODs is to get commodities into the hands of community members. ESF #6 and the Logistics Section will select locations for the CPODs according to community need and site accessibility—for both community members and commodities. All pharmaceutical dispensing is handled separately by Public Health Seattle King County HMAC.

5.4.3 Donations Management

The EOC Logistics Section, with supporting partner agencies, must prepare early on in the incident to manage the influx of unsolicited donations. The EOC Logistics Section will establish a Donations Management Coordination Team to oversee the coordination of operations that includes messaging, staffing, establishing donations facilities, phone bank and as needed coordinating with King County and the State. It will be necessary to work with King County, WA State Emergency Management, and nongovernmental partners to coordinate on a unified messaging early on in the incident.

Even with a public information campaign, it is likely unsolicited in-kind donations will be made. In-Kind donations will be managed by a qualified outside agency with a memorandum of understanding with the City. The management activities will include receipt, processing and distribution of value-added donations, and disposition and disposal of unwanted and unusable items.

5.5 Communications and Data

The City Earthquake Communications Plan describes the various communications systems available to responders and how they will be coordinated during an earthquake. The goal is to provide redundant communication systems that ensure all departments with a critical role can effectively coordinate.

- Requests for radio patching, 800 MHz radio reprioritizing, Cell on Wheels or Switch on Wheels, or other communication resources will be coordinated by Seattle Information Technology Department. The Seattle Information Technology Department and the Emergency Operations Center Logistics Section will coordinate the ordering and support related to communication infrastructure resources.
  - Radio Systems (Seattle Information Technology and Auxiliary Communication Service)
  - Provided to all departments a radio communications plan for an earthquake scenario.
  - Auxiliary Communications Service staffs the Emergency Operations Center communication room and monitors Ops Call channel, amateur radio, King County ECC radio, and others.
  - Auxiliary Communications Service volunteers will also report to workforce rallying points and the Battalion stations to provide redundant communications capabilities there.
  - Some City Hubs may also have amateur radio capability.
  - Phone
- Government Emergency Telecommunication Service (GETS) can be used when the phone system is overloaded with calls. GETS increases the chance a caller using this service will be able to complete a phone call using a wired or cell phone. City responders have been provided accounts including all Emergency Operations Center Duty Officers.
- The City phone network may be more resilient than the public network.
- The EOC can establish up to six answering stations to support the primary EOC phone line.
- The Auxiliary Communications Service monitors the EOC satellite phone.

5.6 Internet

WebEOC is the primary tool for documenting information about the disaster. In the event that internet is unavailable, the EOC would default to pencil and paper backups. The Seattle EOC maintains an email account for general disaster response which is monitored by the Emergency Operations Center Planning Section. The JIC will develop disaster-related messaging for the City's public-facing website.

5.7 Mapping

Mapping in support of disaster operations will be coordinated through the EOC Planning Section. Requests for maps will be directed to the Planning Section. Critical information which the Planning Section will prioritize incorporating into initial EOC situation maps post-earthquake include: major fires, building collapse, major landslides, urban flooding or other immediate and significant hazards; status of major bridges; status of freeway; closed or evacuated hospitals; name and location of incident command posts; and status of ferry terminals. During initial response, much of this information will come from the RMC, so the Planning Section will assign a liaison to listen in on the Battalion brief outs and collect priority incident information. After the incident has begun to stabilize, the EOC Fire Department representative may be able to resume the role as primary conduit of information between the EOC and RMC. Incident-specific information will be combined with maps of known vulnerabilities within the City, both geophysical and social in nature, in order to help inform mass care decision making.

Maps which will help inform situational awareness and will be distributed to EOC responders include:

- A shake map which describes the intensity and location of the earthquake, provided by the United States Geological Service, will be distributed as a separate map.
- Seattle Department of Transportation SharePoint Street Closure Tracking list and Road Conditions map - Documents impacts to City streets and Seattle Police Department can input information into the Street Closure System.
- National Shelter System - Human Services Branch, and other shelter providers in the region, use the National Shelter System database to share shelter information, and FEMA publishes an ArcGIS map of open shelters from the database.

Departments will provide departmental maps to the EOC Planning Section. The EOC Planning Section will ensure that maps generated by other jurisdictions are reviewed before adoption by the City and that maps are reviewed by the Joint Information Center prior to public release. Social Media maps must be verified before use. The EOC Planning Section will monitor social media for operational information. The Joint Information Section will monitor social media maps for public information.

5.8 Reports

The City EOC Consolidated Action Plan and the Essential Elements of Information strategy for earthquakes define how the City Emergency Operations Center shares information. A number of reports are used:

- Snapshot (Common Operating Picture; issued at one to two hours cycles; update on known damage and impacts to services; can be viewed using handheld devices; and is sent to a wide audience of government and partners in the region).
- Situation (Common Operating Picture; generally issued twice during each 12-hour operational period; comprehensive overview of the situation and response operations; and Is sent to wide audience of government and partners in the region).

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- Press Release (Issued frequently during the disaster by the Joint Information Center; and Individual departments may also issue press releases in coordination with the Joint Information Center).

6. MAINTENANCE

This document is an external plan as defined by the City of Seattle Emergency Management Program Planning Policy and follows the maintenance process, which includes a method and schedule for evaluation and revision, as described therein.

Table 3. Record of Changes

RECORD OF CHANGES			
DATE	TYPE	CONTACT	SUMMARY
March 2021	Update	TJ McDonald	Completed annual maintenance with an evaluation and update.
December 2019	Revision	L. Schmit	Incorporated additional catastrophic considerations, including Isolation Phase and rallying points.
April 2018	Update	L. Meyers	Completed annual maintenance with an evaluation and update.
November 2012	Update	Office of Emergency Management	Completed revision.

7. TERMS AND DEFINITIONS

Isolation Phase: The period following a major earthquake when the City anticipates being fully or partially cut off from outside resource, whether due to infrastructure damage or widespread regional impacts.

Incident Command: The Incident Command System (ICS) organizational element responsible for overall management of the incident and consisting of the Incident Commander or Unified Command and any additional Command Staff activated.

Incident Management: Used in this plan to describe those activities directed by an Incident Commander in the field, typically focused on critical lifesaving activities such as firefighting, search and rescue, and emergency medical care.

Unified Command: An ICS application used when more than one agency has incident jurisdiction or when incidents cross political jurisdictions.

Area Command: An organization that oversees the management of multiple incidents or oversees the management of a very large or evolving situation with multiple ICS organizations.

Community Lifeline: Those services that enable the continuous operation of critical government and business functions and are essential to human health and safety or economic security.

Consequence Management: Used in this plan to describe activities coordinated through the EOC and DOCs rather than through a specific Incident Command which focus on addressing the cascading consequences of the earthquake (e.g. shelter, food, and drinking water for the community).

8. ACRONYMS

ACS: Auxiliary Communications Service

ATC: Applied Technology Council

CAP: Consolidated Action Plan

CEMP: Comprehensive Emergency Management Plan

DOC: Department Operations Center

DSCA: Defense Support of Civil Authorities

EEB: Emergency Executive Board

EOC: Emergency Operations Center

ESF: Emergency Support Function

FEMA: Federal Emergency Management Agency

HMAC: Health and Medical Area Command

HSD: Human Services Department

ICS: Incident Command System

IT: Information Technology

LSA: Logistical Staging Area

OED: Office of Economic Development

OEM: Office of Emergency Management

NWHRN: Northwest Healthcare Response Network

PHSKC: Public Health Seattle King County

RMC: Resource Management Center

SCL: Seattle City Light

SDCI: Seattle Department of Construction and Inspections

SDOT: Seattle Department of Transportation

SFD: Seattle Fire Department

SHIVA: Seattle Hazard Identification and Vulnerability Analysis

SNAP: Seattle Neighborhoods Actively Prepare

SPR: Seattle Parks and Recreation

SPU: Seattle Public Utilities

UAV: Unmanned Aerial Vehicles

WAMAS: Washington State Intrastate Mutual Aid System

WebEOC: Virtual EOC Communication Tool

9. REFERENCES

City of Seattle Comprehensive Emergency Management Plan

- Emergency Operations Plan
- ESF functional annexes
- Sheltering plan

Seattle Fire Department Field Orange Book

Seattle Hazard Identification and Vulnerability Analysis

Washington State Intrastate Mutual Aid System

10. PROMULGATION

Insert Promulgation Documentation