Annex E
Damage Assessment

2014

City of Portland Basic Emergency Operations Plan

Annex E - DAMAGE ASSESSMENT

2014

The Portland Bureau of Emergency Management is committed to equity.

The City of Portland complies with all non-discrimination laws including Title VI and Title II of the Civil Rights Act.

To request a translation, accomodation or additional information, please contact Daire Elliott by email at daire.elliott@portlandoregon.gov, by voice 503-823-4375, City TTY 503-823-6868, or Oregon Relay Service 7-1-1.

"The first signs of damage came not from authorities but from residents posting photos to Facebook of broken dishes and fallen cabinets."

Hector Becerra and Rosanna Xia - Los Angeles Times following the 5.1M La Habra earthquake

March 29, 2014

Table of Contents

1 - List of Critical Infrastructure

2 - Quadrant Maps of Critical Infrastructure and ETRs

3 - ATC-20 Rapid Evaluation Safety Assessment Form (ATC)

4 - ATC-20 Detailed Evaluation Safety Assessment Form (ATC)

5 - Public Assistance Initial Damage Assessment Form (OEM)

6 - Individual Assistance Initial Damage Assessment Form (OEM)

7 - Initial Damage Assessment Summary Report Form (OEM)

8 - Table: Inspection Responsibilities by Location and Resource Type

*A*cknowledgements

Primary Plan authors are Jonna Papaefthimiou and Laureen Paulsen of the Portland Bureau of Emergency Management.

PBEM gratefully acknowledges contributions from the following stakeholders:

Purpose

This plan is intended to provide a framework for a coordinated effort to assess damage to infrastructure, public property, and private property in the City following a disaster. It augments the City's Basic Emergency Operations Plan, existing bureau plans, and Emergency Coordination Center (ECC) operating procedures.

Damage assessment information will aid Incident Commanders and the Disaster Policy Council (DPC) in prioritizing response activities and allocating resources immediately following an event. Damage assessment information will also be necessary to determine if additional support is needed from regional, state, or federal sources. If additional support is needed, the City's damage assessment efforts would support the county, state, and federal process required for a presidential disaster declaration, and would document the City's claims following a declaration.

"Damage assessment" in this plan encompasses an effort to collect three layers of information:

Rapid damage assessment: A general situational awareness of damage, which may come from media reports, the public, and other sources, and be of varying detail and quality.

Estimated monetary damages: Estimates of financial losses are needed to complete state and federal forms (Initial Damage Assessment Summary Reports) when applying for a disaster declaration. Estimates may be completed by educated laypersons with just-in-time training.

Safety inspections: Formal assessments of a facility's safety for use and occupancy; they must be completed by a qualified inspector using standard Applied Technology Council (ATC) guidance.

Often, general situational assessment, damage estimates, and safety information will be collected together at the same time. When only one type of information is being collected or referred to, that is explained in the narrative.

Copies of standard Initial Damage Assessment forms (used to summarize estimated monetary damages) and American Technology Council (ATC) inspection forms (used for safety inspections and estimates of monetary damage) are provided as attachments to this plan for illustrative purposes.

Goals and Objectives

Build on existing bureau-level plans to develop a citywide process for accurate and timely disaster damage information collection, compilation, analysis, and synthesis.

- Ensure the information collected is adequate to:

    - Complete a disaster declaration.

    - Inform decision-makers.

    - Prioritize response and recovery actions.

    - Seek Federal reimbursement for short and long-term needs.

- Establish an organizational structure to coordinate damage assessment activities, uniting the efforts of the City of Portland bureaus with each other and with Multnomah County, the Oregon Office of Emergency Management, and the Federal Emergency Management Agency.

- Coordinate damage assessment with other key partners including ODOT, TriMet, the Port of Portland, railroads, schools and colleges, special districts, utilities, hospitals and other key public resource managers.

- Identify ways to facilitate damage assessment activities for homeowners and private businesses.

- Identify the most useful available tools (paper reporting forms, WebEOC, mobile apps, social media, etc.) to describe, verify, and document the type, extent, and location of damages.

- Define geographical sectors and identify critical infrastructure within each sector.

Situation

- The City of Portland is susceptible to hazardous events resulting in extensive property and infrastructure damage from earthquakes, severe storms, landslides, floods, and fires.

- The planning scenario for damage assessment is a major earthquake resulting in widespread damage to ordinary buildings and structures, destroying those that are vulnerable, such as unreinforced masonry or non ductile concrete buildings. Damages will include destabilization and collapse of buildings, transportation infrastructure, and underground utilities.

- An incident like the planning scenario could occur at any time.

- Plans are in place for each infrastructure bureau to assess routine to moderate damages to their facilities and resources. This plan addresses a large-scale event resulting in extensive damage and requiring broad and coordinated damage assessment efforts.

- A large-scale event with regional impacts will deplete the number of qualified inspectors available to conduct safety assessment activities.

- Damage assessment and safety inspections will take place concurrently with, and in support of, other response and recovery activities.

- Damage assessment and safety inspection activities will prioritize critical infrastructure, and whenever possible, work within sectors/geographic areas utilized for debris management activities.

- Damage assessment information is required as a part of the presidential disaster declaration process. That process includes the following steps:

  - City provides Initial Damage Assessment (IDA) information to the county, estimating monetary damages. If Public Assistance is sought, the assessment includes information on damages to infrastructure, public facilities, and essential facilities such as schools. It will also include estimated costs for debris removal, emergency work and emergency protective actions. If Individual Assistance is sought, the initial damage assessment also includes information about damages to private residences and businesses.

  - Multnomah County submits an IDA to Oregon OEM, including information about all damages within the county.

  - If Multnomah County's IDA meets monetary thresholds for per-capita damages as outlined in *44 CFR 206.48*, the state and FEMA initiate a joint Preliminary Damage Assessment (PDA).

- The City and County both participate in the joint PDA, in which state and federal agency staff visit damaged areas and independently assess damages.

- Following a presidential declaration, eligible entities apply directly to FEMA for assistance.

■ Critical infrastructure are those structures and facilities that provide essential life safety services to the community, support public safety, and disaster response and recovery activities. Examples of critical infrastructure include emergency operations centers, public safety facilities (corrections facilities, police and fire facilities), hospitals and critical care facilities, bridges and roads on emergency transportation routes, water and wastewater infrastructure, utilities, and shelters. These facilities have been pre-identified by the County and by City bureaus (for their own facilities) and by BDS (for other facilities). BDS inspectors have contact information for critical facility managers. BDS-identified critical infrastructure are listed in Attachment 1.

■ The City will need to carry out an initial damage assessment for resources within the City, and detailed safety inspections of City resources and other critical resources.

■ BDS must ensure that safety inspections are eventually completed for all damaged facilities and structures in unincorporated Multnomah County.

Assumptions

Following a large-scale event that necessitates a City damage assessment process, the City's Emergency Coordination Center (ECC) will be activated as an Emergency Operations Center (EOC) with Bureau Emergency Operations Centers also activated as bureau incident command posts (BICPs) .

■ The City EOC Operations Section will coordinate field operations for damage assessment, assigning responsibilities according to the table "Inspection Responsibilities by Location and Resource Type" (attached). The Public Works Branch will coordinate inspections of most City water, sewer, and transportation resources. The Damage Assessment Branch, led by the Bureau of Development Services, will coordinate inspections of most other critical

infrastructure. The City's damage assessment process will fall into the following phases:

- Rapid Damage Assessment: EOC activation and situation status reporting, prioritization of areas for further damage assessment, inspections of critical infrastructure.

- Initial Damage Assessment (IDA): estimate damage to public and private property, assemble other estimated costs, compile the information and submit an Initial Damage Assessment Summary Report to Multnomah County (required to evaluate eligibility for state and federal assistance). Simultaneously, continue to complete and document safety inspections of damaged structures.

- Joint Preliminary Damage Assessment (PDA): site visits with state and federal officials to support request for federal assistance.

- Recovery activities: development of FEMA project worksheets and execution of recovery activities.

■ The City's primary responsibilities following a joint PDA and a presidential disaster declaration will be to:

- Maintain and share situational awareness of damage and repair efforts.

Rapid Assessment of Flood Damage in Jamestown, CO
Photographer Michael Rieger 9-27-13

- BDS may seek other qualified professionals to assist with damage assessment via resource requests.

- Social media will be one way to obtain situational awareness. An abundance of unconfirmed information may quickly become available following a large-scale event.

- State agencies, including the Port of Portland and the Oregon Department of Transportation, will communicate their situation to the City and County, but formally report damages directly to the state.

- Document City damage claims for FEMA and City insurance carriers.

- Provide information to other potential applicants on how to apply directly to FEMA.

- Assign staff to pursue specific recovery projects and develop FEMA project worksheets as required.

- Non-essential city employees will be utilized to support damage assessment activities in the field, the EOC or in a virtual capacity monitoring and documenting disaster information.

- City of Portland Neighborhood Emergency Teams (NET) may be activated to support damage assessment.

- Spontaneous volunteers may offer to support damage assessment.

- Volunteers with unknown qualifications may mark buildings as unsafe to occupy using spray paint, caution tape, or similar means.

- Task-specific just-in-time-training (JITT) for non-essential city employees and spontaneous volunteers may be necessary.

- Special districts other than Portland Public Schools, unincorporated Multnomah County, other cities in Multnomah County, and the County itself will report damage to the Multnomah County ECC.

- Damage to City resources, Portland Public Schools, and private resources (including hospitals, schools, non-profits, and for-profit businesses) within the City of Portland will be reported to the City EOC. Reports of damages sustained outside the city limits will initially be referred to the Multnomah County ECC or other applicable jurisdiction.

- Close coordination with Multnomah County will be essential as damage information moves from local jurisdictions to the county to the state; a shared operating picture will also be vital to coordinate other activities such as medical response.

- The City will use forms for damage assessment provided by ATC and the Oregon OEM. These forms will be mirrored in WebEOC. Attachments 3-7.

- Mobile technologies (e.g. smart phone apps) will be useful in assessment of damages.

- Communications systems may be damaged or inoperative.

- Electronic processes should have a manual back-up.

- Contract service providers that meet criteria identified in this plan will be encouraged to pre-qualify to contract with the City.

Roles

City Emergency Operations Center

The **Operations Section** leads the coordination and assignment of damage assessment teams. These teams will conduct initial damage inspections, assess and document damage to buildings and facilities, prepare structural damage assessment reports, post and secure unsafe buildings, mark hazardous areas, and recommend building emergency repairs. There are two branches within Operations responsible for damage assessment:

- **Public Works Branch** works with representatives from BES, PBOT, and PWB to coordinate the activities of bureau damage assessment teams. These teams will be dispatched by BICPS to evaluate the condition of the bureaus' own resources. Public Works Branch will forward damage assessment information from BICPs to the City EOC Situation Status Unit.

- **Damage Assessment Branch** coordinates the assessment and safety inspection of facilities and structures that would not be inspected by BES, PBOT, or PWB. Teams assigned directly by the Damage Assessment Branch will include Parks, OMF, and other City bureaus without a BICP, City employees assigned to work in the City EOC, and non-City employees assisting with damage assessment.
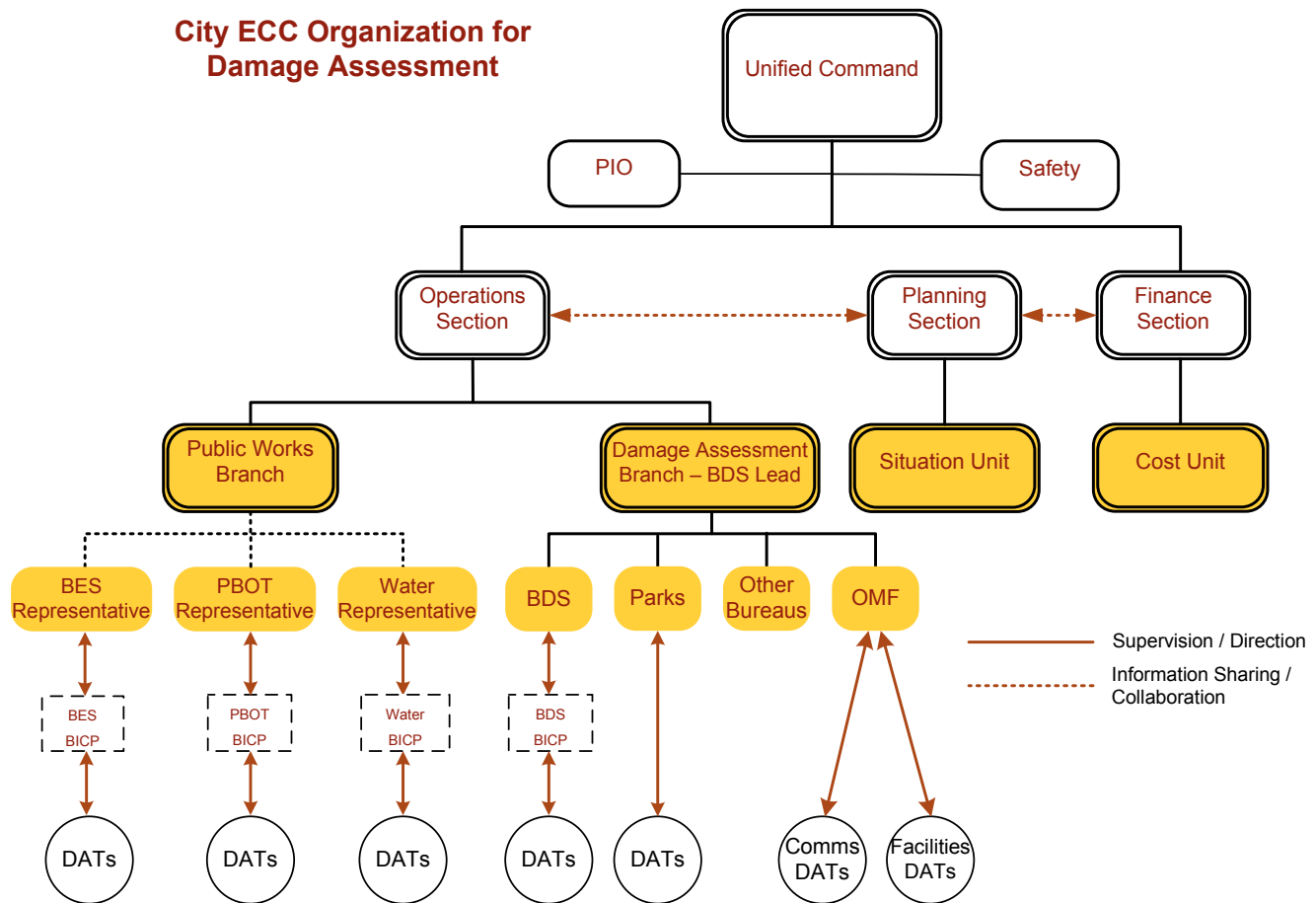
The **Planning Section** receives and compiles damage assessment information and, if a cost estimate is not provided in the field, provides a rough cost estimate based on insured or assessed value. Planning must work with BICPs and the EOC Operations Section to coordinate timely receipt of data from on-site damage assessment teams.

- The **Finance Section** is responsible for completing the IDA summary report submitted to the County. They will summarize estimates of City costs, such as those related to debris removal and incident stabilization, and combine these with estimates of damage from the Planning Section in order to complete the IDA Summary Report.

- **Public Information Officer (PIO)** coordinates with regional partners to disseminate public information on how to report damage and how eligible entities can apply for federal assistance, if authorized. Additionally, the PIO will pass relevant damage assessment information from traditional and social media sources to the planning section.

- **Safety Officer** develops safety plan for incident responders, including damage assessment and safety inspection teams. Recognizes the potential for physical hazards and emotional impacts to field personnel and plans for appropriate resources and support.

City Bureaus

Bureau damage assessment personnel and facility maintenance personnel assigned to city buildings will report damages to facilities, other life safety hazards observed in the course of their work, and condition of major ingress/egress Emergency Transportation Routes (ETRs) using their established reporting process.

City ECC Organization for Damage Assessment

Organization chart (reading top to bottom):

- Unified Command
  - PIO
  - Safety
  - Operations Section ⟷ Planning Section ⟷ Finance Section
    - Public Works Branch
      - BES Representative — BES BICP — DATs
      - PBOT Representative — PBOT BICP — DATs
      - Water Representative — Water BICP — DATs
    - Damage Assessment Branch – BDS Lead
      - BDS — BDS BICP — DATs
      - Parks — DATs
      - Other Bureaus
      - OMF — Comms DATs / Facilities DATs
    - Situation Unit (under Planning Section)
    - Cost Unit (under Finance Section)

Legend:
——— Supervision / Direction
- - - - Information Sharing / Collaboration

Bureau of Development Services

Activate BICP following an event that causes significant damage to buildings in the City. BICP will report facility and infrastructure damages and status to the City EOC.

BDS staff will lead citywide damage assessment and safety inspection teams. BDS staff trained in ATC-20 structural safety inspections will prioritize assessment and inspection of buildings that are critical infrastructure.

BDS is also responsible for inspecting structures in unincorporated Multnomah County.

Bureau of Emergency Communications

Although BOEC will receive reports of damage, call-takers will focus on immediate life safety concerns and refer all other calls to 211, the EOC Message Center, a hotline set up for damage reporting, or advise callers to check the media for instructions on how to report damage depending on the nature of their call.

Bureau of Emergency Management

Activate the City EOC and ensure that all essential positions are staffed to support damage assessment work.

NETs will assemble, establish an operating base and triage center, and begin door-to-door checks and search and rescue activities. Damage information will be reported to the City EOC via the NET communications plan.

Bureau of Environmental Services

Activate BICP and assign qualified BES employees to inspect BES facilities and infrastructure for damage. BICP will report facility and infrastructure damages and status to the City EOC.

Following documentation of damages sustained, BES personnel will facilitate emergency repair of critical infrastructure that create an immediate threat to life safety.

Fire and Rescue

Assess damage to fire facilities and assigned Fire Management Areas and report information to the EOC. It will also report on responses to fires or major structural collapses that constitute damage.

Office of Management and Finance

Facilities: Assess all City buildings managed by OMF and report their assessments to the City EOC. Coordinate with maintenance personnel assigned to city facilities to perform rapid damage assessments and report findings to the City EOC.

Risk: Coordinate with the EOC Planning Section to provide information about insured losses (insurance information is required in an IDA).

Technology Services: Assess and report damage to City communications and data infrastructure (e.g. public safety radio system and City internet service). Provide technical support to damage assessment teams and damage assessment applications.

Finance: Following a presidential disaster declaration, staff from the OMF Grants Office would likely be assigned as the primary liaison with the FEMA Public Assistance Coordinator (PAC) Crew Leader assigned to the City.

Revenue (Office for Community Technology):
Assist Planning Section in coordinating with communication and technology industry partners to assess infrastructure damages.

Parks and Recreation

Activate BICP, assess damage to Parks facilities, and report information to the City EOC.

Following documentation of damage, Parks personnel will facilitate emergency repair of damaged facilities and properties that create an immediate threat to life safety.

Planning and Sustainability

Assist Planning Section in identifying and documenting damage to historic structures.

Police Bureau

Activate BICP, assess damage to Police facilities, and report information from the BICP to the City EOC.

Transportation

Activate BICP. Crews will inspect bridges, transportation infrastructure and clear roads beginning with established ETRs. PBOT's BICP will report damage to roads, bridges, and other infrastructure in the right-of-way to the City EOC. As detailed in the Disaster Debris Management Annex, PBOT will document debris clearance activities for inclusion in the Initial Damage Assessment.

Following documentation of damage, PBOT Maintenance personnel will facilitate emergency repair of critical infrastructure that create an immediate threat to life safety.

Water

Activate BICP, and assign established Water Bureau Damage Assessment Teams (DATs) to assess damage to water bureau infrastructure. Employees assigned to critical infrastructure will inspect those locations for damage. Damage information will be reported to their BICP, which will share this information with the City EOC.

Following documentation of damages sustained, Water Bureau personnel will facilitate emergency repair of critical infrastructure that create an immediate threat to life safety.

Following a large-scale event, bureau directors will assess the operational status of their workplace, the status of their employees, and their ability to perform essential functions, and report this information to the EOC within 12 hours, as outlined in the City Continuity of Operations (COOP) plan. This information will likely be incomplete, but will provide input to an initial situation status report.

All bureaus will document the resources utilized in response to the incident, and report to the EOC Finance Section, following established procedures to ensure public assistance reimbursement of eligible costs.

Utilities

Electrical, natural gas, and telecommunications utilities would activate their own emergency operations centers if their resources were significantly damaged or service disrupted; the City EOC Planning Section would communicate with these utility EOCs through a City liaison officer, or request a liaison to the City EOC to help coordinate damage assessment, debris management and restoration of service.

Universities, school districts, and other large facilities

Most major venue operators and organizations with large campuses maintain an emergency management function. The City EOC Planning Section would communicate with these emergency managers for situational awareness and provide forms for these institutions to provide initial damage assessment.

Individual Residents, Businesses and Non-Profits

For individuals and organizations without an emergency management function, the City would collect initial damage assessment information opportunistically, and rely on the PIO and EOC Planning Section Situation Status Unit staff to inform potential applicants about how to report damage. In a widespread event, the City would likely set up a website and phone line for damage reporting.

Multnomah County

Multnomah County Emergency Management will activate its ECC following an event that causes major damage. City damage assessment information will be provided to the County for submission to the OEM ECC. The City and the County will use the same damage assessment forms and seek to coordinate damage assessment activities as much as possible to avoid duplication and ensure that critical information is collected quickly. All City reports submitted to Multnomah County will be cumulative.

The County will generally inspect its own facilities within the City.

State of Oregon

State agencies including the Port of Portland will formally report damage to the OEM ECC, and the City and County will rely on Oregon OEM to provide city and county-specific situation status information.

Because transportation facilities are critical to City response and recovery efforts, the City EOC would also communicate directly with the Port of Portland's EOC and with ODOT Region 1 Traffic Management Operations Center (TMOC) about the status of their facilities within the City, requesting situation status reports.

Once an Initial Damage Assessment Summary Report has been submitted by Multnomah County to the State, the state will assign a liaison to work with the City through the Joint Preliminary Damage Assessment process and the Public Assistance grant application and dispersement process.

Federal Emergency Management Agency

FEMA coordinates Public Assistance (PA) Grant Programs. Following a presidential disaster declaration, FEMA, in coordination with Oregon OEM, will assign a Public Assistance Coordination (PAC) Crew Leader to each eligible applicant. The assigned PAC Crew Leader will work with City of Portland representatives to process recovery projects.

Volunteers

The City of Portland is collaborating with Multnomah County to develop a plan to manage spontaneous volunteers. Just-in-time training could enable spontaneous volunteers to support damage assessment teams if the City is in need of additional personnel support for damage assessment and has resources to manage the volunteers. The Volunteer Management Annex will describe the resources required to effectively manage and utilize volunteers.

Concept of Operations

Damage assessment activities initially focus on rapid damage assessment—identifying life safety hazards and the status of critical infrastructure—so that the incident commander can rapidly gain situational awareness and prioritize response activities following an incident. Later phases of damage assessment provide more detailed information about damages through safety inspections and estimates of financial damage. This information is the basis for the IDA, joint PDA, and City PA grant requests. In all phases of damage assessment, the collection and dissemination of information is key.

This concept of operations responds to the planning scenario, a major earthquake. In an incident that produced less damage, such as a flood, wildfire, or small earthquake, the phases would progress more quickly, and unnecessary actions (e.g. inspect every fire station) would be omitted. However, this concept would still provide the basis for response and the basic steps of rapid evaluation, IDA, and PDA would still be followed.

Damage assessment also includes collecting estimated costs for debris removal, necessary emergency work, and emergency protective actions which may be eligible for federal reimbursement. Thorough documentation is required for reimbursement.

Rapid Damage Assessment: 0-48 hours

Rapid damage assessment holds life safety first and foremost. It provides the first description of the extent of damage following a destructive incident. During this phase, the focus is on quickly gaining situational awareness of damage, particularly critical infrastructure damage, major structural collapses or mass casualty sites, and an overall assessment of which areas of the City have sustained

the most damage. The rapid damage assessment is the basis for developing the incident action plan for the first few operational periods, and prioritizing assignments for the Initial Damage Assessment phase.

During rapid damage assessment, the City EOC will rely in large part on information provided by emergency responders who were on-duty when the incident occurred, self-deploying bureau damage assessment teams, media reports, information in the computer-aided dispatch (CAD) system, social media, and information from the Multnomah County ECC and OEM.

The City EOC will be activated and EOC responders will report.

> EOC public information staff will monitor traditional and social media forums and gather critical situation status information. They will provide this information to the Planning Section.

> The EOC Planning Section will begin collecting information from BICPs and the Multnomah County ECC, CAD, WebEOC, and public safety radio, including amateur radio if needed.

> Information from damage assessment teams will generally be in a standard format (ATC forms) that matches WebEOC boards and rolls up to state damage assessment summary forms, also in WebEOC. Information from other sources may be incomplete; the Planning Section will enter all information in WebEOC and complete the forms as much as possible.

> Planning Section will develop the first situation status report; this report will be updated regularly throughout the incident, according to EOC Planning Section procedures for situation status reporting.

> The EOC Planning Section GIS Unit will map rapid damage assessment information according to section procedures.

On-duty fire fighters will assess their station and report its status to their battalion chief, and then patrol their Fire Management Area, reporting structural collapses, fires, and other major life safety hazards to the 911 Communications Center.

On-duty police patrol officers will check in with their sergeant via public safety radio or in-person, and then patrol their assigned area, similarly reporting life safety hazards to the 911 Communications Center. Police personnel working in Police facilities will assess the safety of the facility and report to the 911 Communications Center and the Police BICP.

On-duty 911 Communications Center employees will remain at work and continue to work; supervisors will inspect the facility and report damage to the City EOC Planning Section in person or via telephone or radio.

PBOT, the Water Bureau, and BES will activate their BICPs, assemble their damage assessment teams, and proceed to inspect the critical facilities of their bureau. They will report damage assessment information to their BICPs. The information will be recorded in WebEOC by the field team if possible, and otherwise in the BICP.

Bureaus without established ICPs will refer to their bureau COOP plans. All bureaus are expected to make an initial report of damage to their facilities to the City EOC within 2 hours following an incident.

All City personnel working in the field following an incident will also report life safety hazards they observe in the course of their work, calling 911 if lives are in immediate danger and phones are working, and otherwise contacting their BICP or the City EOC via telephone or radio. Employees may also report other significant damage they observe if time and resources allow.

City employees will not tag any structures as safe or unsafe without also reporting their assessment to the BICP, BOEC, or the City EOC.

Volunteers with unknown qualifications may mark buildings as safe or unsafe to occupy. The City will not remove these markings without inspecting the building. However, these markings will not be considered official as the inspector may not have been qualified to make a determination.

It may be necessary to utilize other resources to obtain a comprehensive assessment of the impact and magnitude of the event. Aerial assets are available through Police Bureau, Civil Air Patrol and private contractors to conduct fly-overs of damaged infrastructure.

INITIAL DAMAGE ASSESSMENT PHASE: 48 hours to 2 weeks

The initial damage assessment phase yields the information required for an IDA report to the state. The IDA is the first step in applying for federal assistance. Information collected during the initial damage assessment phase is more detailed than information from the rapid damage assessment phase. Information from rapid damage assessment will be used to prioritize areas of need during initial damage assessment. Whenever possible, safety inspections (to ATC-20 standards) and assessments of the extent of damage for the IDA will be completed simultaneously.

The City will complete detailed assessments of all damaged City facilities. The City EOC will provide avenues for the public to report damage to homes and businesses.

Assessment of financial losses other than building damage (e.g. cost of emergency protective measures) will be calculated at the EOC and included in the Initial Damage Assessment Summary Report.

BDS will activate its BICP and inspection teams will report. They will review situation status reports from the City EOC and other information in WebEOC, and attempt to contact facility managers at pre-identified critical infrastructure. Based on this information and the incident objectives, BDS will dispatch teams to inspect damaged facilities, beginning with critical infrastructure. BDS teams will perform safety inspections using ATC-20 Detailed Evaluation Safety Assessment forms and collect the additional data needed for the IDA forms. BDS has established procedures for deploying damage assessment teams, and BDS teams also follow the international standards set by ATC for assessing, categorizing, and placarding buildings.

If damages are extensive, BDS may deploy BDS inspectors to perform windshield surveys in heavily damaged areas. Windshield survey routes should be chosen in collaboration with the EOC so they are coordinated with debris management operations. ATC-20 Rapid Evaluation Safety Assessment forms will be used to collect this data.

If necessary, BDS may request additional personnel from the City EOC via resource request, to support damage assessment. Trained BDS inspectors or other qualified personnel identified by BDS will lead each team. BDS may engage registered ATC-20 trained engineers and other qualified professionals on the list maintained by the Oregon Building Codes Division.

The City EOC may recall NET volunteers or City staff from other bureaus to support damage assessment. The City EOC will arrange just-in-time training for these personnel if necessary.

If BDS is unable to provide sufficient qualified inspectors to meet the need for safety inspections and IDA information, then the City EOC may support damage assessment
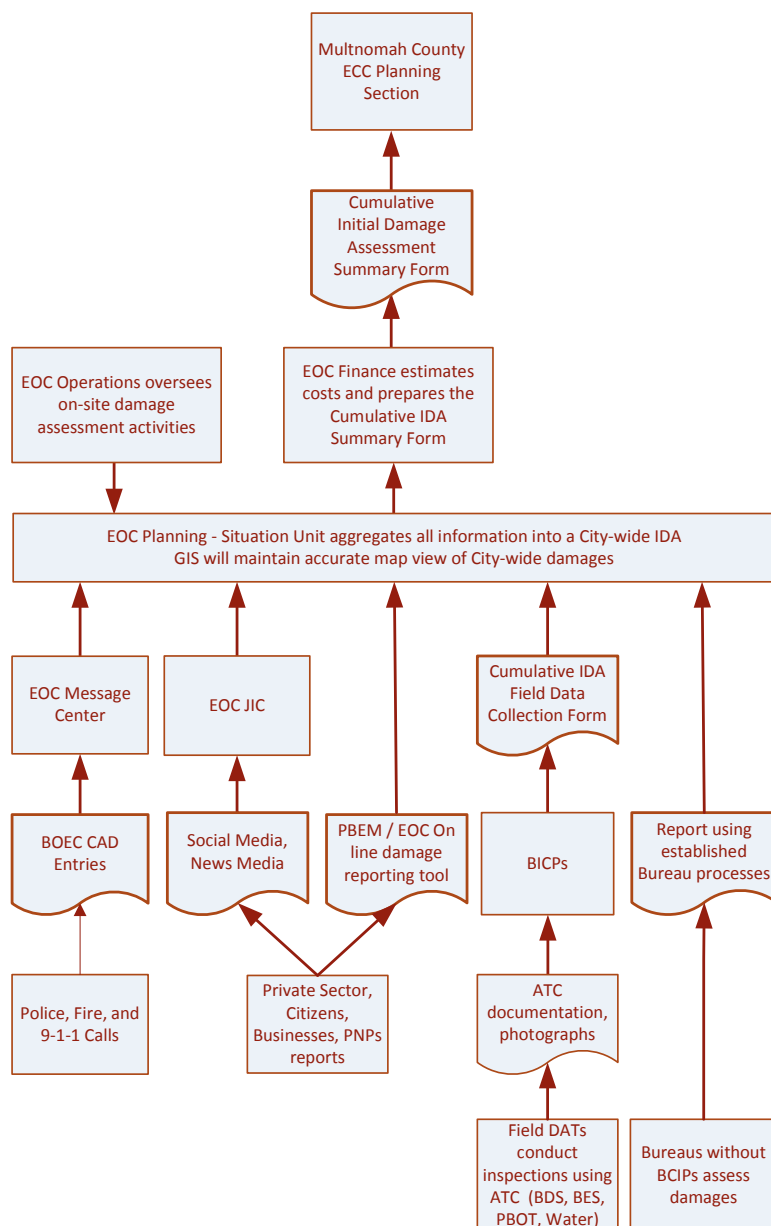
by deploying teams to complete simple assessments only, suitable for estimating financial loss for the IDA.

BES, PBOT, and PWB will continue to refine damage assessment information for their own facilities and will provide that information to the EOC, preferably via WebEOC. They will include estimates of monetary damages to physical infrastructure.

Additional Parks and Facilities staff will be recalled and work to complete ATC-20 Detailed Evaluation Safety Assessment forms for the facilities they manage. If necessary, BDS inspectors will support this work; however, safety inspectors will be in high demand to provide inspections to facilities such as nursing homes, clinics, dorms, and other structures that

All damage assessment field teams will record data in WebEOC as they work, if possible. If this is not possible, data will be reported to the BICP or City EOC and entered into WebEOC as soon as possible (when they reach a Wi-Fi hotspot or area of wireless coverage), and not later than the end of the operational period.

EOC Planning Section Situation Status Unit will collect information from WebEOC and use it to populate an IDA Summary Report for the City, categorize damages eligible for Public Assistance and Individual Assistance using damage summary forms provided by the state, and provide input to situation status reports. The Situation Status Unit may supplement field data with information from City Risk Assets Report (for City buildings), *www.portlandmaps.com*, or other published estimates of value to estimate building values and provide estimates of loss to the Finance Section.

EOC GIS Unit will continue to produce updated maps of damage.

EOC Finance Section will collect costs for temporary protective measures, emergency work and debris management from BICP finance sections, combine them with ECC costs and monetary

Information Flow for Damage Assessment Reporting

Multnomah County ECC Planning Section

↑

Cumulative Initial Damage Assessment Summary Form

↑

EOC Operations oversees on-site damage assessment activities

EOC Finance estimates costs and prepares the Cumulative IDA Summary Form

↓ / ↑

EOC Planning - Situation Unit aggregates all information into a City-wide IDA
GIS will maintain accurate map view of City-wide damages

↑ EOC Message Center — BOEC CAD Entries — Police, Fire, and 9-1-1 Calls

↑ EOC JIC — Social Media, News Media

↑ Cumulative IDA Field Data Collection Form

PBEM / EOC On line damage reporting tool

Private Sector, Citizens, Businesses, PNPs reports

BICPs — ATC documentation, photographs — Field DATs conduct inspections using ATC (BDS, BES, PBOT, Water)

Report using established Bureau processes — Bureaus without BCIPs assess damages

estimates of damage from the Planning Section (Situation Status Unit) and use these to complete the IDA Summary Report.

Homeowners, businesses, and public entities may be encouraged to complete and submit an initial assessment of financial damage to their property. This is most likely in a large-scale event where the demand for damage assessments and safety inspections exceeds the number of available inspectors.

EOC PIO or designee will provide information on where to obtain damage assessment forms and how to submit them. The EOC may accept reports from the public via the Internet, via telephone, or at a community field office coordinated by the City EOC.

EOC public information staff will monitor traditional and social media forums and gather critical situation status information. They will provide this information to the Planning Section.

Information submitted by the public will be directed to the EOC Situation Status Unit to be reviewed and entered into WebEOC.

The City will coordinate with Multnomah County Emergency Management to ensure City data is visible and useful and facilitates their completion of the IDA Summary Report

for Multnomah County. Multnomah County will use the data in WebEOC as the basis for requesting assistance from Oregon OEM.

Assessing Flood Damage in Lyons, Colorado Photographer Patsy Lunch 10-3-2013

JOINT PRELIMINARY DAMAGE ASSESSMENT (PDA): occurs 2-3 weeks following the event, takes 3-5 days to complete

A joint PDA is conducted when the initial damage assessment indicates per-capita thresholds for Public Assistance or Individual Assistance grants have been met. Oregon OEM and FEMA jointly conduct the PDA, visiting and assessing damages reported. FEMA uses the information from the PDA to decide whether a presidential disaster declaration is warranted. The PDA also informs further response activities by providing information to state and federal responders on unmet needs that may require immediate response, and to forecast staffing levels, space requirements, technical and other resources necessary to ensure proper management of disaster recovery operations.

Multnomah County's PA threshold for federal fiscal year 2014 was $2,573,669 and the state threshold was $5,325,193. If this threshold is clearly exceeded, the City should proceed with damage assessment activities as described here, but expect that the joint PDA may follow soon after the event (without several weeks of damage assessment). In that case, federal assistance will be available to complete many of the tasks described, for example, FEMA will accept damage reports directly from the public and is likely to provide staff to support damage assessment and safety inspection teams.

The City EOC will coordinate with Multnomah County, Oregon OEM, and FEMA to arrange site visits of damaged areas in the City of Portland.

EOC Planning Section/Situation Status Unit will help to develop routes and information to accompany the site visits in the City of Portland, and will provide a City liaison for site visits within the City.

EOC Planning Section/GIS Unit will support the site visits with maps of damage within the City.

RECOVERY

Following a presidential disaster declaration, the City will transition to recovery. A separate recovery plan is being developed; only a few fixed elements are included here.

BDS will continue to inspect damaged buildings upon request of owners, and to issue permits for occupancy or demolition.

All damages must be identified within 60 days of the declaration (even if the extent is not known or is adjusted later.)

City grant officer(s) will work with FEMA liaisons to complete and document approved recovery projects.

Staff within each affected bureau will be assigned to manage each recovery project.

Approved recovery projects must evaluate and incorporate mitigation measures where possible; FEMA will advise on recommended measures to consider.

Emergency work must be completed within six months (a six month extension is possible).

Permanent work must be completed within 18 months (a 30 month extension is possible).

Direction and Control

Rapid Damage Assessment: Infrastructure bureau field supervisors will oversee damage assessment activities for their bureaus. Once activated, the city EOC will coordinate the work of the BICP through the Operations Public Works Branch, and the Damage Assessment Branch will directly manage all other City-dispatched damage assessment teams. The EOC will also manage the citywide collection, compilation, analysis and synthesis of information from all city bureaus and all other sources (damage reporting website, social media, traditional media, etc.)

Initial Damage Assessment: Infrastructure bureaus will follow established procedures for damage assessment and report information to the EOC Operations Section Public Works Branch, who will review the information and forward the information to the Planning Section. Tactical direction and control for city-wide damage assessment for critical infrastructure and facilities not assigned to infrastructure bureaus will come from the EOC Operations Section Damage Assessment Branch with authorization from the Operations Chief and the Incident Commander.

Joint Preliminary Damage Assessment: The City EOC will engage bureau representatives and critical infrastructure owners and operators eligible for public assistance to participate in Joint PDA preparation. EOC representatives will coordinate with county, state and federal partners to facilitate required assessments.

If the EOC has been deactivated, the PBEM Operations Manager or designee will be responsible for coordinating these activities.

Recovery: In the recovery phase, long-term safety inspection and permitting activities will transition back to BDS, which is the building authority for the city and unincorporated Multnomah County. Bureaus will manage contracts and individual projects following FEMA Public Assistance Grant guidelines.

Administration, Support and Finance

Rapid Damage Assessment: During rapid assessment, individual bureaus will be responsible for tracking damage assessment data as well as expenditures for personnel, equipment and material resources.

Initial Damage Assessment: The EOC Planning Section (Situation Status Unit) will collect all reports of damages and provide estimates of monetary losses to the Finance Section for inclusion in the IDA Summary Report.

The EOC Finance Section will collect costs from BICPs, track costs for the ECC, receive cost estimates of damage from the Planning Section (Situation Status Unit) and compile them in the IDA Summary Report.

Joint Preliminary Damage Assessment: EOC Planning Section will assist bureaus with the development of site/project packages to be

reviewed and validated during the Joint PDA. If the EOC has been deactivated, PBEM will be responsible for coordinating these activities.

Recovery: Activities will transition back to bureaus who will manage their own capital projects following FEMA Public Assistance Grant guidelines. Depending on the magnitude of the event, the City may opt to establish a long term recovery team to manage recovery efforts.

Annex Development and Maintenance

PBEM is responsible for coordinating the review and update of this plan every three years, or after each major incident or exercise involving damage assessment. Other bureaus with responsibilities identified in this plan will assist according to the roles described.

All responsible bureaus and collaborating agencies should be familiar with the annex and ensure that the content is consistent with their agency's own plans and procedures.

Authorities and References

Applied Technology Council. *"ATC 20, ATC 20-1 and ATC 20-2 and ATC 45."* Website accessed December 2012. *https://www.atcouncil.org/*.

California Emergency Management. *"Post-Disaster Safety Assessment Program (SAP)."* Website accessed November 5, 2013. *http://www.calema. ca.gov/recovery/pages/safety-assessment.aspx*

Federal Emergency Management Agency. *"Public Assistance: Local, State, Tribal and Non-Profit."* Website. Accessed December, 2013. *http://www.fema.gov/public-assistance-local-state-tribal-and-non-profit*

Idaho Bureau of Homeland Security. *State of Idaho Damage Assessment Handbook.* J*uly 2013. http://www.sfdem.org/ftp/uploadedfiles/DEM/PlansReports/ESF3-Public-Works.pdf*

Michigan Department of State Police Emergency Management and Homeland Security Division, *Michigan Damage Assessment Handbook.* May 2013. *http://www.michigan.gov/documents/msp/Michigan_Damage_Assessment_Handbook_December_2009_306809_7.pdf*

Oregon Administrative Rule (OAR) 918-098-1600 *"Post Earthquake Damage Inspectors."*

Oregon Department of Transportation, Office of Maintenance and Operation. "Public Works and Mutual Aid." Accessed December, 2013. *http://www.oregon.gov/ODOT/HWY/OOM/Pages/erp/pwma.aspx*

Oregon Office of Emergency Management. *Mitigation and Recovery, IDA/PDA Information and Disaster Recovery Assistance Guidebook.* Accessed December, 2013. *http://www.oregon.gov/OMD/OEM/Pages/fin_rec/IDA.aspx*

Oregon Office of Emergency Management. *Emergency Operations Plan.* Revised January 2013. *http://www.oregon.gov/OMD/OEM/plans_train/docs/eop/or_eop_basic_plan.pdf*

Oregon Office of Emergency Management. *Cascadia Subduction Zone Catastrophic Operations Plan. http://www.oregon.gov/OMD/OEM/Pages/plans_train/CSZ.aspx#CSZ_Plan*

Oregon Revised Statute ORS 455.448 & 449

"Robert T. Stafford Disaster Relief and Emergency Assistance Act." United States Code, Title 42. Sections 403, 406, and 407.

Portland Bureau of Development Services. *Damage Assessment Plan.* July, 2010.

Portland Bureau of Transportation. *Post-Earthquake Bridge Inspection Response Plan.* February 2014.

Portland Disaster Planning Organization. *2012 Portland Urban Area (PUA) Threat and Hazard Identification and Risk Assessment. http://www.portlandonline.com/index.cfm?a=455639&c=61766*

Portland Water Bureau. *Damage Assessment Team Guidelines.* Undated.

City and County of San Francisco. *Post Disaster Safety Assessment Guide, Appendix to ESF #3: Public Works and Engineering an Annex to the San Francisco Emergency Response Plan.* February 2013. *http://www.sfdem.org/ftp/uploadedfiles/DEM/PlansReports/ESF3-Public-Works.pdf*

*A*ttachments

1. List of Critical Infrastructure

2. Quadrant Maps of Critical Infrastructure and ETR's

3. ATC-20 Rapid Evaluation Safety Assessment Form (ATC)

4. ATC-20 Detailed Evaluation Safety Assessment Form (ATC)

5. Public Assistance Initial Damage Assessment Form (OEM)

6. Individual Assistance Initial Damage Assessment Form (OEM)

7. Initial Damage Assessment Summary Report Form (OEM)

8. Table: Inspection Responsibilities by Location and Resource Type