



Agenda
City of Portland Natural Hazard Mitigation Plan Update
6th Steering Committee Meeting
Wednesday, January 20, 2016, 4:00 to 6:30 PM
Wy'East Conference Room, Level L1, 501 N Dixon St., Portland, OR 97227
Call in Number: 800-523-8437 Code: 707-186-3750



4:00pm – 4:20pm	WELCOME AND INTRODUCTIONS
Jeremy O’Leary, <i>Chairperson</i> and Kristen Gelino, <i>Planning Team</i>	<ul style="list-style-type: none">• Round-table introductions• Establish quorum• Review the agenda• Public comment• Review the action items and approve December meeting summary• Administrative updates• Draft table of contents
Handout – SC#5 Summary and Draft Table of Contents	
4:20pm – 5:00pm	OBJECTIVES DEVELOPMENT
Jeremy O’Leary, <i>Chairperson</i> and Kristen Gelino, <i>Planning Team</i>	<ul style="list-style-type: none">• Present the Planning Team recommendation• Discuss and confirm objectives
Handout #1 – Draft Vision, Mission, Goals and Objectives	<p>Why this matters: Broader than actions, but more specific than goals, objectives are specific enough to help determine whether a proposed project or program would advance the values expressed in the goals. Objectives may also be thought of as ‘policies.’ In our planning process, objectives will be used to define and prioritize actions.</p> <p>Feedback requested: Feedback on objectives that are confusing or unclear and any gaps.</p> <p>Example: I think we need to have an objective that specifically addresses... Objective 1 and 4 are saying the same thing and 4 is stated more clearly.</p>
5:00pm – 5:20pm	ACTION ITEM DEVELOPMENT OVERVIEW
Kristen Gelino, <i>Planning Team</i>	<ul style="list-style-type: none">• Planning team will describe action plan development and introduce our next steps in moving towards
Handout #2 – Overview of terminology and next steps in action development	<p>Why this matters: Actions are specific projects and activities that help us achieve our goals. The action plan forms the heart of the mitigation strategy (and the plan) and should be developed from the results of the risk assessment. Actions are what we hope to implement in the next five years in order to reduce risk to natural hazards.</p> <p>Feedback requested: Any question or clarification that is needed on action development. We recommend that you keep our vision, mission, goals and objectives in mind during this discussion.</p> <p>Example: How will our input be utilized in action development?</p>
5:20pm – 5:30pm	BREAK
5:30pm – 6:20pm	PROGRESS REPORT AND PLAN MAINTENANCE
Jeremy O’Leary, <i>Chairperson; Danielle Butsick</i> and Kristen Gelino, <i>Planning Team</i>	<ul style="list-style-type: none">• Present and discuss the 2010 Progress Report• Introduce and discuss plan implementation and maintenance
Handout #3 – Draft 2010 Progress Report and Handout #4 – Plan implementation and maintenance overview	<p>Why this matters: Actions are the way in which we achieve our goals, so it is important to reflect on where we have made progress over the performance period of the prior plan. If we did not make progress, why not? Plan maintenance is the process established to track the plan’s implementation progress and to inform the plan update.</p> <p>Feedback requested: Comments and questions on the 2010 Progress Report. Ideas for strategies for plan maintenance.</p> <p>Example: I would like to see a hazard mitigation working group that is charged with... or I think the public should continue to be involved in the planning process by...</p>

6:20pm – 6:30pm

PUBLIC COMMENT AND NEXT STEPS

Jessica London,
Chairperson and Kristen
Gelino and Danielle
Butsick, *Planning Team*

- Public comment
- Planning process update
- Review action items identified in the meeting

6:30pm

ADJOURN



MEETING SUMMARY

Date of Meeting: January 20, 2016

Subject: Steering Committee Meeting No. 6

Project Name: City of Portland 2016 Natural Hazard Mitigation Plan Update

In Attendance: **Steering Committee:** Casey Milne, Danielle Brooks, Darise Weller, Dean Stearman, Glen Collins, Jeff Soulages, Jeremy O’Leary, Jennifer Levy, Jessica London, Jim Mattison, Jonna Papaefthimiou, John Steup, Kathryn Hartinger, Kathy Roth, Karen Tam, Laurent Picard, Maggie Skenderian, Micah Meskel (for Bob Sallinger), Molly Emmons, Nickole Cheron, Sherrie Forsloff, Simeon Mamaril, Rich Grant, Rob Lee, and Solamon Ibe

***Phone**

Planning Team: Danielle Butsick, Stephen Veith and Kristen Gelino

Non-voting Attendees and Members of the Public: Alex Roth, Allison Boyd and Ed Gibson

Steering Committee Members (or alternate) Not Present: Darlene Urban Garrett, Dean Alby, Jeff Geisler, Mary Ellen Collentine, Ranfis Giannettino Villatoro, Ronault LS Catalani, and Vicente Harrison

Summary Prepared by: Kristen Gelino and Stephen Veith – 01/31/2016

Project No.: 103S3954

Quorum – Yes or No Yes (25 voting members present)

Item	Action
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Welcome and Introductions

- Jeremy O’Leary, acting chairperson for the December meeting, opened the meeting and facilitated round-table group introductions for all persons present and on the phone.
 - At the time the meeting opened, the committee had not reached a quorum. A quorum was reached shortly after the welcome and introduction section of the agenda.
 - Mr. O’Leary and Kristen Gelino reviewed the meeting agenda and no modifications were made.
 - Handouts provided included: Agenda, December Meeting Summary (SC#5), Draft Vision, Mission, Goals and Objectives (HO#1), Overview of Terminology and Next Steps in Action Development (HO#2), Draft 2010 Progress Report (HO#3) and Plan Implementation and Maintenance Overview (HO#4).
 - Mr. O’Leary asked if any member of the public wished to address the committee. No members of the public were present who wished to provide comment.
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Item	Action
<ul style="list-style-type: none"> - The December meeting summary was reviewed by the committee and no comments were made; however, the summary was not approved because a quorum had not been reached. - Danielle Butsick provided a few administrative updates to the committee: <ul style="list-style-type: none"> - Index cards had been provided to the committee as part of this month's meeting packet. The planning team wanted to ensure that all comments were being captured from all committee members. Committee members should feel free to submit any questions or lingering comments that had not been addressed during the discussion to the planning team. - Ms. Butsick indicated that she had followed up with Multnomah County staff on the City of Maywood Park's participation in the County hazard mitigation plan. She introduced Allison Boyd who was in attendance and had reached out to the City regarding their participation. Maywood Park will be covered by the risk assessment that the County is conducting as part of their planning process. - Ms. Butsick thanked the committee for their input and insight on the development of the public survey. She indicated that a draft of the survey was in development and that she had met with several individuals one-on-one to provide feedback. She indicated that if anyone else wished to provide feedback and comment, they should reach out to her directly. She noted that the planning team hoped to have a live survey in early February. 	<p>The December meeting summary will be reviewed and approved at the February steering committee meeting.</p>

Objectives Development

Ms. Gelino introduced the draft mission, vision, goals and objectives handout. She indicated that the planning team had decided to give the committee a break on homework assignments and had, instead, drafted a set of objectives that meet multiple goals for the committee's review using other community objectives and mitigation best practices. Ms. Gelino reviewed the draft mission, vision and goals that had been selected previously by the committee and reviewed the definition of objective for this planning process:

Broader than actions, but more specific than goals, objectives are specific enough to help determine whether a proposed project or program would advance the values expressed in the goals. Objectives may also be thought of as 'policies.' In our planning process objectives will be used to define and prioritize actions.

A committee member indicated that the committee should be careful with using the word value after the decision to not develop value statements for the plan. This was noted by the planning team and they indicated that they would



Item	Action
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revise the definition to capture steering committee sentiments. Further discussion ended with a recommendation to revise the definition of objectives to refer to the values expressed in the vision and mission, rather than goals.

The planning team will revise the definition of objective as requested.

Ms. Gelino then asked all committee members to read through the draft objectives. She indicated that committee members should look for gaps and for objectives that are confusing in their wording. Ms. Gelino reminded the committee that objectives would be used to frame action item development. As an example, Ms. Gelino read the first draft objective “strengthen development codes and update land use designations to facilitate effective disaster risk reduction,” and indicated that an example of an action to come out of this might be reviewing on-site storm water retention policies to ensure that such regulations were not exasperating the potential for landslides in identified landslide hazard areas.

After reviewing the objectives several concerns and comments were brought up by committee members:

- Equity should be incorporated into each goal through an objective under each goal
- The layout of the objectives and their relationship to the goals is not user friendly and is confusing
- It is not clear how objectives will be measured (Note: the planning team clarified that actions in this planning process are used to show progress on meeting goals and objectives)
- It is unclear which objectives some action items from the 2010 plan would support (Note: the planning team indicated that this may indicate gaps in the draft objectives, although, the action items will be reworked during this update so these objectives are to apply to the 2016 actions rather than the 2010 actions)
- Objectives should be more specific with less planning language
- Draft objective number five could use more detail
- Objectives should be specific to each goal
- Objectives are unnecessary and should not be used in this planning process
- The goals and objectives are less important as long as the action items are clear.

After much discussion the committee agreed to move forward with the draft objectives and to revise them if needed later in the planning process.

Action Item Development Overview

Ms. Gelino provided an overview presentation on action item development. She indicated that handout #2 provided some of the information that she was presenting and was a companion document to the presentation. Ms. Gelino



Item	Action
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reviewed key terms, introduced ways to reduce risk, introduced types of mitigation actions and discussed next steps. During the course of the presentation Maggie Skenderian from the Portland Bureau of Environmental Services provided some background information on the role of natural resources in hazard mitigation. Additional work on action item development will occur over the next several months.

Progress Report and Plan Maintenance

Ms. Butsick introduced the draft 2010 progress report. She indicated that this report provides the status of the action items identified in the 2010 plan. She noted that finding information on the status of these actions was challenging because there were over 100 identified actions, some of the actions items were unclear, and some did not have clearly responsible agencies assigned to their implementation. That being said, Ms. Butsick indicated that progress on actions had in fact been made. 82 percent of the identified actions in the 2010 plan had at least been started, if not completed. She indicated that the goal for the 2016 plan is to have a more formalized system for plan implementation and maintenance. The committee then discussed recommendations for the plan implementation and maintenance strategy and the following suggestions were made:

- Each identified action should have a clearly identified lead agency that is responsible for the action item's implementation
- Reporting on actions should be at least annual and more frequent if possible
- The bureaus should come together to review and discuss actions before annual grant cycles
- Resident involvement should continue during plan implementation and in monitoring progress
- Updates on action implementation should be bureau-wide and should be made available to the public
- There should be an easy mechanism for public feedback on implementation reporting
- Information on progress reporting should be made available at public outreach events and should include data points and measurable progress
- The project website should continue to be maintained and information on progress reporting should be posted
- Presentations should be made to the neighborhood coalitions each year



Item	Action
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- Progress reporting should be integrated into bureau reporting mechanisms
- Avenues for reaching college students/environmental students should be identified
- Additional follow up work on the survey could be conducted if certain groups are missed in the initial efforts.

Public Comment and Next Steps

- No members of the public present wished to make public comment.
- Ms. Gelino and Ms. Butsick provided a brief status update on other aspects of the project. They noted that they had just come from a meeting with the Oregon Department of Geology and Mineral Industries where they had heard information on a current project regarding landslide hazard areas and had received recommendations for action items. They also noted that the planning team was working to schedule the next Critical Energy Infrastructure stakeholder meeting and the committee would be informed when the date and time are confirmed. Jonna Papaefthimiou provided an update on the recent storm and flooding events experienced by the region. She indicated that there were millions of dollars of damages reported and that a presidential disaster declaration was expected. Ms. Papaefthimiou noted that this would open up grant opportunities for mitigation project. She reminded the committee that there is a planning requirement to receive these funds, so the committee has a strong incentive to work to get the plan completed on schedule. Ms. Gelino further clarified that in addition to the requirement to have an approved hazard mitigation plan to receive funding, there is also generally a requirement that projects for which funds are sought be identified in the plan. She indicated that this is part of the reason that the planning team recommended the particular structure for the objectives. It was also clarified that a mechanism for adding action items would be included in the plan implementation and maintenance strategy.
- The meeting was adjourned at 6:30 PM. The next steering committee meeting is:

February 17, 2016 at 4:00 PM
Portland Public Schools Blanchard Education Service Center
Wy'East Conference Room, Level L1
501 N Dixon St.
Portland, OR 97227
Call in number: 1-800-523-8437 code: 707-186-3750



Handout #1: Draft Vision, Mission, Goals and Objectives

VISION

Definition - A desired future state.

Portland is a prosperous, healthy, equitable and resilient city where everyone has access to opportunity and is engaged in shaping decisions that affect their lives (City of Portland 2035 Comprehensive Plan)

MISSION

Definition - What we do, who we do it for, and how.

To equitably reduce risk and the adverse impacts of natural hazards by building community resilience through collaborative, cost-effective actions and strategies.

GOALS

Definition - General guidelines that explain what we want to achieve with the plan.

1. Protect life and reduce injuries.
2. Engage the whole community.
3. Minimize public and private property damage.
4. Protect, restore, and sustain natural systems.
5. Minimize the disruption of essential infrastructure and services.
6. Integrate mitigation strategies into existing plans and programs.
7. Prioritize multi-objective actions that reduce risk to vulnerable communities.

OBJECTIVE

Definition - Broader than actions, but more specific than goals, objectives are specific enough to help determine whether a proposed project or program would advance the values expressed in the goals. Objectives may also be thought of as 'policies.' In our planning process objectives will be used to define and prioritize actions.

	Draft Objective	Goals						
		1 - Life	2 - Whole Community	3 - Property	4 - Natural Systems	5 - Infrastructure	6 - Integrate	7 - Prioritize
1.	Strengthen development codes and update land use designations to facilitate effective disaster risk reduction (Adapted from Portland CP 4.78)	✓		✓	✓		✓	
2.	Prevent or reduce mitigation-related disparities affecting under-served and under-represented communities through plans, investments and engagement (adapted from Portland CP 7.2)	✓	✓	✓		✓	✓	✓
3.	Promote the use of natural systems to limit natural hazard related impacts (adapted from Portland CP 7.4b)				✓		✓	
4.	Increase the resilience of high-risk and critical infrastructure through monitoring, planning, maintenance, investment, adaptive technology, and continuity planning (Portland CP 8.25)	✓		✓		✓	✓	
5.	Coordinate land use plans and public facility investments between City bureaus, other public and jurisdictional agencies, businesses, community partners, and other emergency response providers (adapted from Portland CP 8.99)		✓	✓		✓	✓	
6.	Support community outreach activities that increase stakeholder awareness and understanding of hazard risk and mitigation options (Multnomah NHMP O1.2)	✓	✓	✓	✓			
7.	Identify and seek various funding opportunities for mitigation activities and look for ways to leverage existing funds (adapted from Multnomah NHMP O1.5)	✓		✓		✓	✓	
8.	Seek opportunities in which hazard mitigation also benefits other community goals (adapted from Multnomah NHMP O3.4)	✓	✓	✓	✓	✓	✓	✓
9.	Collect data to track progress on meeting mitigation goals.	✓	✓	✓	✓	✓	✓	✓
10.	Use the best available data, science and technologies to improve understanding of the location and potential impacts of natural hazards, the vulnerability of building types and community development patterns, and the measures needed to protect life safety.	✓		✓	✓			
11.	Retrofit, purchase, or relocate structures in high hazard areas, especially those known to be repetitively damaged.	✓		✓		✓		
12.	Promote, incentivize and support the mitigation of private property.	✓	✓	✓				✓

Draft Objective		Goals						
		1 - Life	2 - Whole Community	3 - Property	4 - Natural Systems	5 - Infrastructure	6 - Integrate	7 - Prioritize
13.	Improve systems that provide warning and emergency communications.	✓	✓		✓	✓		
14.	Promote mutual information exchange and incorporate existing community networks in the identification and implementation of mitigation actions.		✓				✓	
TOTAL		11	9	11	7	8	9	4

ACTIONS

Definition - Specific projects and activities that help achieve the goals.

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Handout #2: Next Steps in Action Development

SOME KEY TERMS

- **Mitigation strategy:** the long-term blueprint for reducing the potential losses identified in the risk assessment.
- **Vision:** Our desired future state.
- **Mission:** What we do, who we do it for, and how.
- **Goals:** General guidelines that explain what we want to achieve with the plan.
- **Objectives:** Broader than actions, but more specific than goals, objectives are specific enough to help determine whether a proposed project or program would advance the values expressed in the goals. Objectives may also be thought of as ‘policies.’ In our planning process objectives will be used to define and prioritize actions.
- **Actions:** Specific projects and activities that help achieve the goals.

WAYS TO REDUCE RISK

- Manipulate the Hazard (example – channelize a river)
- Reduce Exposure (example – buy out a property)
- Reduce Vulnerability (example – retrofit a building)
- Increase Capability (example – secure funding)

TYPES OF MITIGATION ACTIONS

- **Prevention**—Government, administrative or regulatory actions that influence the way land and buildings are developed to reduce hazard losses. Includes planning and zoning, floodplain laws, capital improvement programs, open space preservation, and stormwater management regulations.
- **Property Protection**—Modification of buildings or structures to protect them from a hazard or removal of structures from a hazard area. Includes acquisition, elevation, relocation, structural retrofit, storm shutters, and shatter-resistant glass.
- **Public Education and Awareness**—Actions to inform citizens and elected officials about hazards and ways to mitigate them. Includes outreach projects, real estate disclosure, hazard information centers, and school-age and adult education.
- **Natural Resource Protection**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. Includes sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
- **Emergency Services**—Actions that protect people and property during and immediately after a hazard event. Includes warning systems, emergency response services, and the protection of essential facilities.
- **Structural Projects**—Actions that involve the construction of structures to reduce the impact of a hazard. Includes dams, setback levees, floodwalls, retaining walls, and safe rooms.

NEXT STEPS

1. Review results of risk assessment and planning team identified issues
2. Review mitigation catalog and best practices
3. Identify strengths, weaknesses, obstacles and opportunities and translate these into potential actions
4. Send potential actions to Bureaus
5. Identify mitigation actions for inclusion in plan
6. Assign lead agency, identify potential resources, estimate timeframe, anecdotal benefit-cost review, and prioritize.

Handout #3: 2010 NHMP Progress Report



2010 City of Portland Natural Hazard Mitigation Plan

2015 Progress Report

REPORTING PERIOD

March, 2010 through January, 2016

BACKGROUND

The City of Portland has developed and maintained a hazard mitigation plan, most recently updated in 2010. The City of Portland Natural Hazard Mitigation Plan identifies resources, information, and strategies for reducing risk associated with natural hazards in the city. The plan was adopted in 2010 and approved by FEMA Region X on February 15, 2011.

By preparing the 2010 update, the City retained compliance with the federal Disaster Mitigation Act and remained eligible for hazard mitigation grant funding under the federal Robert T. Stafford Act. The plan and annexes are available to the public online at the following website:

<https://www.portlandoregon.gov/pbem/53813>

An update of the 2010 plan is underway. The new update will be adopted before the end of 2016.

Purpose

This progress report provides an update on implementation of the action plan identified in the 2010 City of Portland Natural Hazard Mitigation Plan. This report was prepared by the 2016 update planning team and reviewed by the 2016 update steering committee. The objective is to ensure that there is a continuous planning process that keeps the local hazard mitigation plan responsive to stakeholder needs and capabilities. The contents of this progress report are as follows:

- Summary overview of action plan progress
- Recent natural hazard events
- Changes in risk exposure within the planning area
- Mitigation success stories
- Itemized review of the action plan
- Changes in capability in the planning area that could impact plan implementation
- Recommendations for changes/enhancement.

The Steering Committee

The update steering committee holds an evolving role in plan implementation, based on the hazard mitigation needs of the region. At a minimum, the steering committee provides technical review and oversight on development of implementation progress reports. Table 1 lists current steering committee membership.

Table 1. 2013 Steering Committee Members

Primary	Alternate	Jurisdiction or Agency
Maggie Skenderian	Kate Carone	Bureau of Environmental Services (BES)
Kathryn Hartinger	Roberta Jortner / Sallie Edmunds	Bureau of Planning and Sustainability (BPS)
Danielle Brooks	Judith Mowery	Office of Equity and Human Rights (OEHR)
Vicente Harrison		Parks & Recreation
Laurent Picard	Leo Crick	Fire and Rescue (PF&R)
Jessica London	Justin E. Ross	OHSU Institute on Development and Disability/Oregon Office of Disability and Health
Bob Sallinger	Micah Meskel	Portland Audubon Society
Dean Alby		Oregon Food Bank
Simeon Mamaril		Philipino American Community
Jeff Soulages		OSSPAC
Glen Collins		Department of Homeland Security
John Steup		NET/ARES/LEPC
Darlene Urban Garrett		Downtown NET/NWN
Solamon Ibe		PAALF Groundwork Portland
Karen Tam	Bob Burkholder	Brummell Enterprises, SMILE Member, Sellwood/Moreland
Mary Ellen Collentine	Mike Saling	Portland Water Bureau
Jim Mattison	Shalini Prochazka, S.E.	Simpson Strong-Tie
Kathy Roth	Mark Feters	Bureau of Development Services
Jeremy O'Leary		East Portland Action Plan
Ronault (Polo) LS Catalani	Lisha Shrestha	Immigrant and Refugee Community Organization IRCO
Jeff Geisler	Margaret Puckette	Hayden Island Neighborhood Network (HINoon)
Rob Lee		Linnton Neighborhood Association
Jennifer Levy	Emilie Saks-Webb	St. Johns Neighborhood Association
Molly Emmons		Portland Public Schools
Ranfis Giannettino Villatoro		Portland Voz
Jonna Papaefthimiou		Bureau of Emergency Management
Nickole Cheron		Office of Neighborhood Involvement (ONI)

Sherrie Forsloff	Mike Nurre	OHSU Emergency Management
Casey Milne	Tom Milne	Goose Hollow Foothills League
Dean Stearman		Volunteers of America
Rich Grant		Portland Bureau of Transportation (PBOT)
Darise Weller		Portland Harbor Community Advisory Group

SUMMARY OVERVIEW OF ACTION PLAN PROGRESS

The 2010 City of Portland Natural Hazard Mitigation Plan includes an action plan that identifies specific mitigation initiatives and a performance period for implementation of those initiatives. Table 2 summarizes the initiatives and current progress as of the time of this progress report.

Table 2. Summary Overview of Action Plan Progress

Number of Mitigation Initiatives Identified	
Mitigation Initiatives Started or Completed	<i>To Be Completed</i>
Number of Initiatives	
Percent of Total	
Mitigation Initiatives Not Started	<i>To Be Completed</i>
Number of Initiatives	
Percent of Total	

RECENT NATURAL HAZARD EVENTS IN THE PLANNING AREA

January, 2012 Winter Storm – Heavy flooding, street closures.

July, 2013 Government Island Wildfire – Over 20 acres of wildlands on Government Island burned.

February, 2014 Winter Storm – Snow and freezing rain. City of Portland issued Emergency Alert advising residents to remain indoors due to ice.

July, 2015 Excessive Heat – County activated cooling centers.

August, 2015 – Smoke Event – Wildfires across Oregon negatively impacted air quality in the Portland Metro region. County health departments issued warnings.

December, 2015 Severe Weather – Heavy flooding, landslides, and wind damage. State Disaster Declaration. Federal Disaster Declaration under evaluation.

January, 2016 Severe Weather – Significant snow and ice throughout the city. Hazardous conditions due to icy roads and walkways. City offices closed and warming shelters opened.

CHANGES IN RISK EXPOSURE IN THE PLANNING AREA

To Be Completed

MITIGATION SUCCESS STORIES

To Be Completed

REVIEW OF THE ACTION PLAN

This section reviews the action plan and lists the status of each initiative from the hazard mitigation plan, grouped by the agency or department responsible for its completion. The action plan matrix in Table 3 provides the following information:

- Brief summary of initiative
- Lead agency responsible for implementation
- Indication of whether any action has been taken (Yes or No)
- Current timeline (Short Term or Long Term)
- Indication of whether the project priority has changed (Yes or No)
- Status (Complete, Ongoing or No Progress)
- Comments, including the following information:
 - Was any element of the initiative carried out during the reporting period?
 - If no action was completed, why?
 - Is the timeline for implementation for the initiative still appropriate?
 - If the initiative was completed, does it need to be changed or removed from the action plan?

PLANNING AREA CHANGES THAT MAY IMPACT PLAN IMPLEMENTATION

To Be Completed

RECOMMENDATIONS FOR CHANGES OR ENHANCEMENTS

Based on the review of this report by the steering committee, the recommendations described in the following sections will be noted for future updates or revisions to the plan.

To Be Completed

Public review notice: *The contents of this report are considered to be public knowledge and have been prepared for total public disclosure. Copies of the report have been provided to local media outlets. The report is also posted on the City of Portland Natural Hazard Mitigation Plan website. Any questions or comments regarding the contents of this report should be directed to:*

Danielle Butsick, Natural Hazard Mitigation Planner
Portland Bureau of Emergency Management
9911 SE Bush Street
Portland, OR 97266
503-823-3926
danielle.butsick@portlandoregon.gov

Table 3. Action Plan Matrix

Action Taken?	Timeline	Priority Changed?	Comment (Describe progress or changed priority)	Status
ST MH #1 — Continue to involve the public in updating the Natural Hazard Mitigation Plan. (education & outreach)				
Lead Agency: Portland Bureau of Emergency Management				
Yes	Long Term	No	In progress. Outreach is recorded in EMPG grant reporting. PBEM does regular outreach and is supportive of MCDD's Levee Ready Columbia outreach efforts.	Ongoing
ST MH #2 — Form a committee to identify and coordinate critical transportation (street and highway) networks. (mapping, asset management)				
Lead Agency: Portland Bureau of Transportation				
Yes	Long Term	Yes	There is no committee, but we have identified emergency transportation routes for key facilities. If new facilities are built, transportation routes would be re-evaluated.	Complete
ST MH #3 — Coordinate emergency standard operating procedures and plans between disaster responder organizations in the Portland metro region, to coordinate and expedite decision making during emergencies. (planning)				
Lead Agency: Portland Bureau of Emergency Management				
Yes	Short Term	No	Regional Multi-Agency Coordination (MAC) on operations. Internally deconflicted the County Basic Emergency Operations Plan (BEOP) with the City BEOP. PBEM reviews other bureaus' emergency procedures.	Complete
ST MH #4 — Develop a multiple-agency multi-hazard evacuation plan (EQ, flood, fire and landslide at a minimum).				
Lead Agency: Portland Bureau of Emergency Management				
Yes	Short Term	No	Evacuation Plan developed. Certain areas of highest risk have individualized plans (Linnton).	Complete
ST MH #5 — Acquire Light Detection and Ranging (LiDAR) images of the Portland Metro area to facilitate natural hazard area risk assessment and vulnerability analysis. (mapping) (NFIP Compliance)				
Lead Agency: Bureau of Planning and Sustainability				
Yes	Short Term	No	Acquisition complete. Analysis in progress.	Complete

Action Taken?	Timeline	Priority Changed?	Comment (Describe progress or changed priority)	Status
<p>ST MH #6— Use findings from Portland’s Risk Assessment (HAZUS-MH) to enhance existing debris removal plan. HAZUS-MH will need to be updated. (existing GIS Mapping) Lead Portland Bureau of Emergency Management Agency:</p>				
Yes	Short Term	No	The 2003 HAZUS analysis was used to update Metro's debris removal plan from the 1990's in 2013. Debris modeling is being updated regionally. A new HAZUS analysis is being completed as part of the 2016 plan update.	Complete
<p>ST MH #7— Create a mitigation mapping committee to index and maintain GIS mapped inventory and develop prioritized list of critical facilities, residential and commercial buildings within known hazard areas such as earthquake, erosion, the 100-year and 500-year floodplains, invasive plant species, landslide and wildfire areas. (NFIP Compliance) Identify parameters and methods for new maps as needed to meet multi-hazard mitigation goals and to improve communication with the public. Lead Corporate GIS Agency:</p>				
Yes	Long Term	Yes	CGIS maintains inventory in Portland Maps. No such committee exists. Much of this will be accomplished through the NHMP update. Parks, BES data, PBOT erosion data, and others are included. PBEM also promotes the Map Your Neighborhood initiative. DROP.	Complete
<p>ST MH #8— Partner with utilities as they ensure continuity of service to the City and the Columbia South Shore Well field to provide for redundancy in case of primary power outage. (asset management) Lead Portland Water Bureau Agency:</p>				
Yes	Long Term	No	The Groundwater Electrical Improvements project, currently in design, will provide for upgrades and additional redundancy to the Groundwater Pump Station electrical system.	Ongoing
<p>ST MH #9— Develop a city employee emergency response plan to assure that city employees know what is expected of them to continue City operations. (education, outreach) Lead Portland Bureau of Emergency Management Agency:</p>				
Yes	Short Term	No	All bureaus have submitted Continuity of Operations Plans (COOP), and recognize accountability requirements. PBEM is hiring a COOP planner. The mayor sends out emails informing employees what to do in an emergency.	Complete

Action Taken?	Timeline	Priority Changed?	Comment (Describe progress or changed priority)	Status
<p>ST MH #10— Develop educational materials (television and print media) for residents that identify and define their risk to multi hazards: define and offer mitigation measures that residents can take home or share, determine method of distribution of the educational materials and coordinate with the media to reduce conveyance of misinformation. (education, outreach) Lead Portland Bureau of Emergency Management Agency:</p>				
Yes	Long Term	No	PBEM hired a comm. outreach representative, supports preparedness campaigns, promotes preparedness materials, and has offered seismic strengthening programs. Public Information Officer (PIO) works with local news (KOIN) on post-disaster collaboration.	Complete
<p>ST MH #11— Implement actions in the 2005 Portland watershed management Plan (PWMP) (planning) (NFIP Compliance) Lead Bureau of Environmental Services Agency:</p>				
Yes	Short Term	No	Dozens of projects have been implemented since the PWMP was completed. BES is developing a comprehensive Stormwater System Plan that will significantly increase our ability to address drainage and flooding problems. Analysis available Sept. 2016.	Ongoing
<p>LT MH #1— Revise Portland’s Comprehensive Plan to address and implement Citywide policies, land use improvements and mapping changes to natural hazards including, but not limited to, earthquakes, erosion, floods, invasive plants, landslides, volcano, severe weather and wildfires. (mapping, planning) (NFIP Compliance) Lead Bureau of Planning and Sustainability Agency:</p>				
Yes	Long Term	No	The draft Comp. Plan includes policies to reduce natural hazard risks and impacts, proposes changes to reduce development in areas prone to natural hazards. City Council hearings started November 2015. Adoption and submittal in spring 2016.	Ongoing
<p>LT MH #3— Increase the responsiveness of the emergency permitting procedures for post-hazard event periods through development of a procedural plan and the purchase of a mobile permitting van. (planning) Lead Bureau of Development Services Agency:</p>				
CHOOSE	CHOOSE	CHOOSE		CHOOSE
<p>LT MH #6— Promote the development of TriMet communications and dispatch capability to immediately implement changes to transit routes and service due to disruption of streets, roads, bridges, rail transit tracks and the information technology that provides connectivity. (planning) Lead Portland Bureau of Transportation Agency:</p>				
No	Long Term	No	Not started, identified as a need.	No Progress

Action Taken?	Timeline	Priority Changed?	Comment (Describe progress or changed priority)	Status
<p>LT MH #8— Review and amend City Code and other compliance documentation to require that all facilities that store or handle hazardous materials (including large tanks) and which are located in the 500-year floodplain, landslide, or other hazard areas, develop a hazardous materials inventory statement. This statement will be made available for Fire Bureau review. Require that these storage tanks are either adequately protected or relocated outside of the 500 year floodplain, landslide, or other hazard areas. (asset management) (NFIP Compliance)</p> <p>Lead Bureau of Planning and Sustainability Agency:</p>				
No	Long Term	No	City Resolution 36156 (Water Bureau) requires businesses in the Columbia South Shore Well Field Wellhead Protection Area that meet haz-mat thresholds to report a hazardous materials inventory every November 30. Not in Title 33, Title 24 or Fire Code.	No Progress
<p>LT MH #9— Identify and pursue funding opportunities from outside agencies to fund and implement identified mitigation projects and activities. (education, outreach)</p> <p>Lead All Bureaus Agency:</p>				
Yes	Long Term	No	FHA grant funding for PBEM/PBOT transportation planner. PDM 13 grant for NHMP update, HMP grant for seismic retrofitting of private residences, PDM 15 grant application for seismic retrofit of private residences. PBEM annually applies for and receives Emergency Management Performance Grants (EMPG), Urban Areas Security Initiative (UASI) grants, and others on a regular basis. *Note: PBEM did not receive the UASI grant in 2013.	Complete
<p>LT MH #10— Assess the stability of levees in the Columbia Corridor Area and develop appropriate emergency plans to address potential levee failure and associated hazards. (planning)</p> <p>Lead Office of Government Relations Agency:</p>				
Yes	Long Term	No	Assessments are being conducted through the Levee Ready Columbia project, and some have already been completed. Emergency response plans have been and will be developed for specific areas of concern.	Ongoing
<p>LT MH #11— Support development of a multiple-agency plan for Marine Drive closure coordination. (planning)</p> <p>Lead Portland Bureau of Transportation Agency:</p>				
No	Short Term	No	No multi-agency plan exists between MCDD, Port of Portland, PBOT, and PPB. Plans are developed ad hoc or as needed basis. Associated with winter weather plan/annex.	No Progress

Action Taken?	Timeline	Priority Changed?	Comment (Describe progress or changed priority)	Status
<p>LT EQ #11— Work with local jurisdictions to assess the capacity of landfill to accommodate earthquake debris: develop coordination plans for disposal of debris in the aftermath of an earthquake. (planning) Lead Portland Bureau of Emergency Management Agency:</p>				
Yes	Short Term	No	A debris management plan is under development. PBEM is working with Metro and the Regional Disaster Preparedness Organization.	Ongoing
<p>New MH #1— Cross reference and incorporate mitigation planning provisions into all community planning processes such as comprehensive, capital improvement and land use plans, to demonstrate multiple bureau benefits and strengthen eligibility from multiple funding sources. This action is also identified in LTFL#8, IS#94 & SW#117. (planning) Lead Portland Bureau of Emergency Management Agency:</p>				
Yes	Long Term	No	2010 Natural Hazard Mitigation Plan components incorporated into Climate Action Plan and Comp. Plan update. PBEM regularly provides comments on citywide planning efforts and requests comments or participation from other bureaus on PBEM planning activities	Complete
<p>New MH #2— Identify and list repetitively flooded structures and infrastructures, analyze the threat to these facilities and prioritize mitigation actions to protect the threatened population. (NFIP Compliance) Lead Bureau of Environmental Services Agency:</p>				
Yes	Long Term	No	There are 11 repetitive loss properties throughout the city (plus two that have been mitigated by floodplain restoration projects that are still recorded as repetitive loss)	Ongoing
<p>New Reworded MH— Acquire (buy-out), demolish, or relocate structures from hazard prone area. Property deeds shall be restricted for open space uses in perpetuity to keep people from rebuilding in hazard areas. (planning) (NFIP Compliance) Lead Bureau of Environmental Services Agency:</p>				
Yes	Long Term	No	1-2 properties on the Repetitive Loss Properties list are in target areas for acquisition.	Ongoing
<p>New MH #3— Develop and incorporate building ordinances commensurate with building codes to reflect survivability from all hazards to ensure occupant safety. (NFIP Compliance) Lead Bureau of Development Services Agency:</p>				
CHOOSE	CHOOSE	CHOOSE		CHOOSE
<p>New MH #4— Update the Infrastructure Master Plan and System Vulnerability Assessment, Sewer Failure Response Plan. (asset management, planning) Lead City Asset Managers Group (CAMG) Agency:</p>				
CHOOSE	CHOOSE	CHOOSE		CHOOSE

Action Taken?	Timeline	Priority Changed?	Comment (Describe progress or changed priority)	Status
<p>New MH #5— Partner with agencies to develop a west side operations center to be used during an emergency if the east side ECC and other City facilities become inoperable.</p> <p>Lead Agency: Portland Bureau of Emergency Management</p>				
Yes	Long Term	No	The Jerome Sears Center is currently being retrofitted to ADA accessibility to be temporary homeless shelter (6 months). Additional upgrades could be made over time to convert it to a west side operations center.	Ongoing
<p>New MH #6— Promote 09 Climate Action Plan action items with similarities to adaptation planning and mitigation actions. (planning)</p> <p>Lead Agency: Bureau of Planning and Sustainability</p>				
Yes	Long Term	No	This is a multi-bureau effort. A Climate Action Plan Implementation Team with representatives from key implementing bureaus meets regularly to monitor progress on 2015 CAP and 2014 Climate Change Preparation Strategy.	Ongoing
<p>ST EQ #2— Assess existing earthquake related mitigation plans and vulnerability studies to identify areas of conflict, duplication or gaps between studies & secondary hazards of earthquake. (planning)</p> <p>Lead Agency: Portland Bureau of Emergency Management</p>				
Yes	Short Term	No	This is being completed as part of the 2016 natural hazard mitigation plan update.	Ongoing
<p>ST EQ #3— Update the vulnerability analysis of Columbia Boulevard Wastewater Treatment Plant (CBWTP0 Tryon Creek Wastewater Treatment Plant (TCWTP) and wastewater pump stations. (asset management, planning)</p> <p>Lead Agency: Bureau of Environmental Services</p>				
Yes	Long Term	No	This was in the Capital Improvement Plan for 2013, but Bureau of Environmental Services determined at that time that more study was needed and we delayed it, but other related projects have been completed. A resiliency plan will be developed in FY16-18.	Ongoing
<p>ST EQ #4—Prioritize the return of power to treatment plants (Tryon Creek and Columbia Boulevard) and pump stations.</p> <p>Lead Agency: Bureau of Environmental Services</p>				
Yes	Long Term	No	Bureau of Environmental Services has done several things under this umbrella and is otherwise required to have a high priority on power reliability by federal standard for critical assets.	Ongoing

Action Taken?	Timeline	Priority Changed?	Comment (Describe progress or changed priority)	Status
<p>ST EQ #8—Study the feasibility of mandatory or voluntary installation of seismic shutoff valves on natural gas meters at commercial and residential buildings.</p> <p>Lead Agency: Portland Bureau of Emergency Management</p>				
Yes	Short Term	Yes	PBEM pursued this, but it did not come to fruition. Valves are expensive, and take time to turn back on after being shut off. It may be pursued at a state level. BPS and BDS have advocated for disclosure of seismic information upon sale of homes.	Complete
<p>LT EQ #3—Develop a plan to strengthen sewer infrastructure in areas where street overlays and sewers have potential to collapse in a seismic event. (asset management)</p> <p>Lead Agency: City Asset Managers Group (CAMG)</p>				
Yes	Short Term	No	City Asset Managers Group is working on this. NHMP risk assessment could identify projects and key risk areas.	Ongoing
<p>LT EQ #6—Assess the vulnerability of the water distribution system to seismic events: work toward hardening the system.</p> <p>Lead Agency: Portland Water Bureau</p>				
Yes	Long Term	No	The Water Bureau has completed a number of seismic evaluations and upgrades over the last several years. A comprehensive evaluation of the entire water system is planned to be completed in the Fall of 2016.	Ongoing
<p>LT EQ #8—Study development regulations and policies to ascertain if regulations can be made to limit development of high risk facilities in known areas of earthquake hazards.</p> <p>Lead Agency: Bureau of Planning and Sustainability</p>				
No	Long Term	No	Not begun. BPS is leading the Comprehensive Plan and Central City 2035 planning process, which could establish the policy framework to update regulations. There are other options too, e.g., changes to fire code.	No Progress
<p>SW #2—Acquire an additional facility for storage of anti-icing materials and expand anti-icing vehicle inventory.</p> <p>Lead Agency: Portland Bureau of Transportation</p>				
Yes	Long Term	No	The city has acquired two new anti-icing vehicles. There is one storage location now. This is being addressed in conjunction with other needs at the Jerome Sears facility.	Ongoing
<p>ST SW #6—Insulate residential buildings that house at risk populations.</p> <p>Lead Agency: Bureau of Planning and Sustainability</p>				
Yes	Long Term	Yes	Not happening in this way. BPS created Clean Energy Works, which does this through grants, and energy efficient upgrades. DROP.	Complete

Action Taken?	Timeline	Priority Changed?	Comment (Describe progress or changed priority)	Status
ST SW #7 —Prioritize existing building stock for active review of Title 29 (Dangerous Building Code) This needs to be updated with intern information or information sent from individuals that are on the team.				
Lead Bureau of Development Services				
Agency:				
CHOOSE	CHOOSE	CHOOSE		CHOOSE
ST FL #1 — A covenant is recorded with the deed of new development in the floodplain to ensure that space below the BFE is not converted to habitable space. This should be codified to improve compliance. (NFIP Compliance)				
Lead Bureau of Development Services				
Agency:				
CHOOSE	CHOOSE	CHOOSE		CHOOSE
ST FL #2 —Continue to co-fund improvements to river and stream gauges in the Portland metropolitan area with the United Geological Survey.				
Lead Bureau of Environmental Services				
Agency:				
Yes	Long Term	No	BES continues to allocate funding for these important sources of hydrologic (and in some cases, water quality) data.	Ongoing
ST FL #4 —Secure the agreements necessary to design and implement the redevelopment of Freeway Land Company site. (within the Lents Urban Renewal Area)				
Lead Bureau of Environmental Services				
Agency:				
Yes	Short Term	No	Potential with a current manufacturing company interested in the site. Should know by June if it is a viable project.	Ongoing
ST FL #5 —Acquire outside funding to hire a consultant to lead the application process to maintain a Class 5 rating when the City seeks Community Rating System re-certification.				
Lead Bureau of Environmental Services				
Agency:				
Yes	Short Term	No	Recently completed reverification. Portland is likely to be a Class 6 Community follow an extremely rigorous reverification process. New, more robust guidelines in the 2013 CRS Coordinators' Manual made it impossible to retain Class 5 status.	Complete
ST FL #6 —Support Multnomah County Drainage District (MCDD) in the continued calibration and update of hydraulic models for conveyance and internal flood impacts to the four floodplains managed by MCDD #1.				
Lead Bureau of Environmental Services				
Agency:				
Yes	Short Term	No	Participated in information sharing for update of the internal drainage study. In addition, developed and calibrated model to predict stormwater volumes from BES stormwater system to the Multnomah County Drainage District #1.	Ongoing

Action Taken?	Timeline	Priority Changed?	Comment (Describe progress or changed priority)	Status
<p>ST FL #8—Identify funding for the design and construction of the Springwater Wetlands Complex, a 30-acre floodplain wetland restoration project in the Lents area of Johnson Creek.</p> <p>Lead Bureau of Environmental Services Agency:</p>				
Yes	Long Term	Yes	Grant funding was identified, but became cost-prohibitive. BES is pursuing a way to self-fund the project. Capital Improvement Plan advisory committee meeting in January to seek funding.	Ongoing
<p>ST FL #9—Secure funding to implement the passive flood management projects that are recommended in the Johnson Creek Restoration Plan & other watershed management plans. Coordinate with Portland Development Commission’s urban renewal efforts in Lents and with other partners in other parts of the watershed.</p> <p>Lead Bureau of Environmental Services Agency:</p>				
Yes	Short Term	No	BES is currently working with Housing, PDC, and Mayor’s office to submit an application to Oregon Solutions to implement a robust set of projects that will help mitigate 100-year flood impacts to 300+ residential properties and numerous businesses.	Ongoing
<p>ST FL #10—Improve definitions and refine standards for stormwater retention in the Storm water Management Manual.</p> <p>Lead Bureau of Environmental Services Agency:</p>				
Yes	Short Term	No	New Stormwater Management guidelines have just been released, with clarifying definitions and standards.	Complete
<p>LT FL #1—Increase funding for the Johnson Creek Willing Seller Program; establish willing seller programs in other watersheds where flood hazard and priority restoration areas coexist. (NFIP Compliance)</p> <p>Lead Bureau of Environmental Services Agency:</p>				
Yes	Long Term	No	In addition to the Johnson Creek Willing Seller Program, a Watershed Land Acquisition Program is in place that prioritizes properties with significant hydrologic function and/or value. Over 450 acres have been acquired City-wide in partnership with Portland Parks (and in some cases, Metro) under the Watershed Program. Willing Seller funding is available to purchase the additional properties needed to implement the JC Restoration Plan. Over 20 acres acquired through the Willing Seller Program since 2010.	Ongoing
<p>LT FL #3—Develop a plan for addressing flooding in the Holgate Lake area. (planning) (NFIP Compliance)</p> <p>Lead Bureau of Environmental Services Agency:</p>				
Yes	Long Term	No	No progress to date. Anticipate looking at this area as part of the larger Lents Floodplain/Oregon Solutions project.	No Progress

Action Taken?	Timeline	Priority Changed?	Comment (Describe progress or changed priority)	Status
<p>LT FL #4—Improve hydraulic bottleneck that prevents discharge of chlorinated effluent to the Willamette River during high river levels. (NFIP Compliance)</p> <p>Lead Bureau of Environmental Services</p> <p>Agency:</p>				
Yes	Long Term	No	The recent Facilities Plan update anticipates a future improvement of installing a high river bankside outfall to provide access to flow to the Willamette River during the conditions outlined.	Ongoing
<p>LT FL #5—As Waterfront Park remodeling is designed, ensure that Portland’s downtown property and critical facilities remain protected from floodwaters. (asset management)</p> <p>Lead Parks and Recreation</p> <p>Agency:</p>				
CHOOSE	CHOOSE	CHOOSE		CHOOSE
<p>LT FL #6/#7—Partner with Army Corps of Engineers to conduct modeling of the Willamette River upstream of Portland to identify areas that, if acquired or restored, would contribute to mitigate of peak flows in Portland or result in significant reduction of flood damages. (NFIP Compliance)</p> <p>Lead Bureau of Environmental Services</p> <p>Agency:</p>				
Yes	Long Term	No	BPS contracted with PSU for work with the Army Corps to model the Willamette River flood extent through Portland under Climate Change scenarios. Following this, areas will be identified that may be used to reduce peak flows. Analysis complete in 2018.	Ongoing
<p>LT FL #8—Develop goals, policies and implementation measures to manage the amount of new impervious surface and remove existing impervious surfaces where appropriate. These goals, policies and measures may be at the citywide, watershed, or sub-watershed level. (planning) (NFIP Compliance)</p> <p>Lead Bureau of Planning and Sustainability</p> <p>Agency:</p>				
Yes	Long Term	No	Draft Comprehensive Plan contains goals and policies, and updated CAP and new Climate Change Preparation Strategy include objectives and actions to limit and reduce impervious area. BES would lead implementation measures to actually remove pavement.	Complete
<p>LT FL #9—Upgrade trestles that carry the main conduits of the water delivery system. (Sandy River Crossing interties completed) (asset management)</p> <p>Lead Portland Water Bureau</p> <p>Agency:</p>				
Yes	Long Term	No	Several conduit trestles have been eliminated or upgraded over the last several years. Eight more are recommended to be completed over the next five years.	Ongoing

Action Taken?	Timeline	Priority Changed?	Comment (Describe progress or changed priority)	Status
<p>FL #10—Create redundancy in the water delivery system at the three Sandy River crossings by burying conduits under the river (in progress). Lead Portland Water Bureau Agency:</p>				
Yes	Long Term	No	Two of these crossings have been replaced as part of a construction project completed in 2010. The Conduit 3 Crossing of the Sandy River is scheduled for completion within the Water Bureau's five year Capital Improvement Plan.	Ongoing
<p>LT FL #11—Provide funding for and participate in development of a flood inundation model for the managed floodplains and downtown sea wall. (mapping) (NFIP Compliance) Lead Bureau of Environmental Services Agency:</p>				
CHOOSE	CHOOSE	CHOOSE		CHOOSE
<p>LT FL #12—Install a river gauge in the vicinity of the bridge over Johnson Creek at 108th. The gauge should be able to send data to remote monitoring sites. Lead Bureau of Environmental Services Agency:</p>				
Yes	Short Term	Yes	The bridge was removed as part of the Foster Floodplain Natural Area construction, which created an additional 120 acre feet of flood storage along SE Foster Rd. We have installed a crest gage however to determine flood levels during over-bank events.	Complete
<p>LT FL #13—Install one-way valves on the outlet pipes of the storm inlets on SE Foster Road between 101st and 112th. Lead Bureau of Environmental Services Agency:</p>				
Yes	Long Term	No	These outlets now go to a stormwater facility that is part of FFNA.	Complete
<p>FL #1—Complete update to the Johnson Creek Restoration Plan. Develop individual plans for each subwatershed to address the sources of excess stormwater runoff that exacerbates flooding. (NFIP Compliance) Lead Bureau of Environmental Services Agency:</p>				
Yes	Short Term	No	This work falls under the Stormwater System Plan. See ST-MH #11.	Ongoing
<p>FL #2—Establish flood mitigation priorities for critical facilities and residential and commercial buildings located within the 100- year floodplain using survey elevation data. (NFIP Compliance) Lead Office of Management and Finance Agency:</p>				
Yes	Short Term	Yes	The City Asset Managers Group is working to define critical facilities, rather than prioritize, which is the first step. This will also be furthered by the NHMP risk assessment and action item update.	Ongoing

Action Taken?	Timeline	Priority Changed?	Comment (Describe progress or changed priority)	Status
ST-LS #1 —Continue to maintain and Improve internal City communications to facilitate coordination of landslide mitigation activities. (education, outreach)				
Lead Agency: Portland Bureau of Emergency Management				
Yes	Long Term	No	PBEM continues working to improve internal coordination and communication. It is unclear what this action refers to specifically in terms of landslide mitigation. DROP or clarify.	Ongoing
ST-LS #3 —Mitigate Portland’s water supply infrastructure from landslide hazards. (asset management)				
Lead Agency: Portland Water Bureau				
Yes	Long Term	No	Evaluation work continues on PWB facilities considered vulnerable to landslides.	Ongoing
ST-LS #4 —Initiate more operations and maintenance pilot projects along roads that inform about the development of standards for managing stormwater in ditches in landslide prone areas. (education, outreach)				
Lead Agency: Bureau of Environmental Services				
CHOOSE	CHOOSE	CHOOSE		CHOOSE
LT-LS #1 —Develop a comprehensive landslide map for the City of Portland to identify hazard areas and to improve communications with the public. (mapping)				
Lead Agency: Bureau of Planning and Sustainability				
Yes	Short Term	No	BPS is coordinating with DOGAMI on a project to improve landslide related maps and data. This is currently between Corporate GIS and DOGAMI. CGIS will update landslide data based on DOGAMI work.	Ongoing
New LT LS #3 —Evaluate the role of drainage systems in the West Hills, including pipes, streams and drainage ways and options for protecting and improving their functions and increasing their resiliency. (planning)				
Lead Agency: Bureau of Environmental Services				
Yes	Short Term	No	This work falls under the Stormwater System Plan. See ST-MH #11.	Ongoing
LT LS #4 —Review the effectiveness of existing regulations related to development in landslide hazard areas. (planning)				
Lead Agency: Bureau of Planning and Sustainability				
No	Short Term	No	Not started but could be a good Comprehensive Plan implementation project. It could be coupled with project to address impervious area and use new landslide data from DOGAMI.	No Progress

Action Taken?	Timeline	Priority Changed?	Comment (Describe progress or changed priority)	Status
LT-LS #6 —Employ alternative construction methods such as trenchless construction on City projects to reduce the impact that development can have in landslide prone areas.				
Lead Bureau of Environmental Services				
Agency:				
CHOOSE	CHOOSE	CHOOSE		CHOOSE
LT LS #7 —Continue development of standards for small pump stations as an alternative to gravity sewers in accessible or high risk areas.				
Lead Bureau of Environmental Services				
Agency:				
No	Short Term	No	BES recognizes this as a desirable project but has not begun work yet. This may need to be dropped.	No Progress
ER #1 —Develop recommendations for high and low ranking streamside plants that provide more erosion control, such as reducing erosion from high water and wave actions.				
Lead Bureau of Environmental Services				
Agency:				
CHOOSE	CHOOSE	CHOOSE		CHOOSE
ER #2 —Implement projects that retain native vegetation, increase vegetation diversity and increase the complexity of the vegetation strata (having three vegetation strata: herbs, shrubs, trees).				
Lead Bureau of Environmental Services				
Agency:				
Yes	Long Term	No	Robust invasive plant removal/native plant installation implementation over the last 5 years.	Ongoing
ER #3 —Implement policies to increase the extent of coverage of the Greenway zones along the rivers and further limit proposed activities within these areas.				
Lead Bureau of Planning and Sustainability				
Agency:				
Yes	Long Term	No	In progress. Central City 2035 plan anticipates proposing expanded river setback, updated regulations, and riverbank enhancement targets.	Ongoing
ER #4 —Develop standards for soil backfill in vegetated areas, especially sloped areas. (planning)				
Lead Bureau of Environmental Services				
Agency:				
CHOOSE	CHOOSE	CHOOSE		CHOOSE
ER #5 —Establish regulations that prevent installation of slopes steeper than 3:1 and prohibit development on slopes steeper than 3:1. (planning)				
Lead Bureau of Development Services/Bureau of Planning and Sustainability				
Agency:				
No	Short Term	No	No such proposal yet.	No Progress

Action Taken?	Timeline	Priority Changed?	Comment (Describe progress or changed priority)	Status
ER #6 —Implement projects that layback and/or regrade riverbank slopes and secure wetland sod mats composed of native emergent/grasses, etc.				
Lead Bureau of Environmental Services				
Agency:				
Yes	Long Term	No	These practices are used routinely in our restoration projects. Six projects, 98 acres completed since 2010.	Ongoing
ER #7 —Construct and install bio-engineered slope protective measures to reduce or eliminate erosion				
Lead Bureau of Environmental Services				
Agency:				
CHOOSE	CHOOSE	CHOOSE		CHOOSE
ER #8 —Implement projects that increase large wood structures that act to soften the effect of wave action on shorelines as well as provide habitat for migrating salmonids.				
Lead Bureau of Environmental Services				
Agency:				
Yes	Long Term	No	These practices are used routinely in our restoration projects. Six projects, 98 acres completed since 2010.	Ongoing
ER #9 —Secure large wood [boles w/ attached root wads] or log rafts to reduce high wave action that can result in erosion.				
Lead Bureau of Environmental Services				
Agency:				
CHOOSE	CHOOSE	CHOOSE		CHOOSE
ST WF #1 —Consolidate unassigned and/or unmanaged vegetated areas owned by the City under a single land management umbrella. (asset management)				
Lead Office of Management and Finance				
Agency:				
CHOOSE	CHOOSE	CHOOSE		CHOOSE
ST WF #2 —Procure funding for management of vegetated natural areas with high wildfire danger, including public and private properties.				
Lead Parks and Recreation				
Agency:				
CHOOSE	CHOOSE	CHOOSE		CHOOSE
ST WF #4 —Provide wildfire management training to staff. (education, outreach)				
Lead Fire and Rescue				
Agency:				
CHOOSE	CHOOSE	CHOOSE		CHOOSE

Action Taken?	Timeline	Priority Changed?	Comment (Describe progress or changed priority)	Status
<p>ST WF #5—Amend the Portland Plant List and other related City plant lists and landscaping guides to include/identify fire resistant native plants and planting strategies that could be encouraged or required in local landscaping. (planning)</p> <p>Lead Bureau of Planning and Sustainability Agency:</p>				
Yes	Short Term	No	The Portland Plant List was updated to provide information about fire resistant native plants. Other landscaping and tree guides are maintained by BDS and PP&R.	Complete
<p>ST WF #6—Integrate, as appropriate, fire prevention goals and provisions into City policies, plans and codes. Identify and address ambiguities or conflicts among city requirements. (planning)</p> <p>Lead Bureau of Planning and Sustainability Agency:</p>				
Yes	Short Term	No	The draft Comprehensive Plan includes policies and map changes to reduce future risks and impacts from natural hazards, including wildfire. The draft plan also includes new urban forest related policies that recognize the need to manage for wildfire.	Complete
<p>ST WF #7—Identify conditions of approval and mitigation strategies that could be applied to new development or redevelopment in high risk areas.</p> <p>Lead Bureau of Planning and Sustainability Agency:</p>				
Yes	Long Term	No	The Comprehensive Plan could set the stage to address this in future code amendments (e.g., ezones, land division).	Ongoing
<p>ST WF #9—Improve the system for identifying new construction in areas subject to wildfires and communicating this information to the affected land owners. (planning)</p> <p>Lead Bureau of Development Services Agency:</p>				
CHOOSE	CHOOSE	CHOOSE		CHOOSE
<p>ST WF #10—Conduct systematic reviews of Portland’s large, publicly owned, wildland tracts regarding fire safety and ecological health to ensure informed land management decisions. (asset management)</p> <p>Lead Parks and Recreation Agency:</p>				
CHOOSE	CHOOSE	CHOOSE		CHOOSE
<p>ST WF #11—Adopt the national “Fire Danger Rating System” and install the signs at key points in the City.</p> <p>Lead Fire and Rescue Agency:</p>				
CHOOSE	CHOOSE	CHOOSE		CHOOSE

Action Taken?	Timeline	Priority Changed?	Comment (Describe progress or changed priority)	Status
ST WF #12 —Implement a neighborhood wildland interface disaster planning program. (education, outreach)				
Lead Portland Parks and Recreation				
Agency:				
No	Long Term	Yes	Not implemented as a planning program. Parks participated in the Community Wildfire Protection Plan development with Oregon Dept. of Forestry and Multnomah County. Parks reduces fire risk by removing invasive species and clearing power lines.	No Progress
ST WF #13 —Review and potentially refine City contract specifications for machinery operations during “Red Flag” weather conditions. (asset management)				
Lead Fire and Rescue				
Agency:				
CHOOSE	CHOOSE	CHOOSE		CHOOSE
ST WF #14 —Convene a standing wildland interface fire technical group. (planning)				
Lead Fire and Rescue				
Agency:				
CHOOSE	CHOOSE	CHOOSE		CHOOSE
ST WF #15 —Index City wildfire mitigation plans and activities. (asset management)				
Lead Fire and Rescue				
Agency:				
CHOOSE	CHOOSE	CHOOSE		CHOOSE
WF —Develop and implement protocol for defining and mapping Wildland Urban Interface Zones and develop recommended policies, regulations and landscape options for incorporation into City plans and programs. (planning)				
Lead Bureau of Planning and Sustainability				
Agency:				
No	Long Term	No	Not started. This could be a good Comprehensive Plan implementation project. It should be co-led with Portland Fire & Rescue.	No Progress
ST WF #16 —Identify water grid engineering requirements for firefighting in wildfire areas. (asset management)				
Lead Fire and Rescue				
Agency:				
CHOOSE	CHOOSE	CHOOSE		CHOOSE
LT WF #2 —Review the feasibility of adopting portions of nationally recognized wildfire interface codes to strengthen building standards in wildfire risk areas.				
Lead Fire and Rescue				
Agency:				
CHOOSE	CHOOSE	CHOOSE		CHOOSE

Action Taken?	Timeline	Priority Changed?	Comment (Describe progress or changed priority)	Status
LT WF #3 —Design and conduct a study to determine the effectiveness of maintenance agreements that are established when new land divisions are approved to manage vegetation in open space tracts.				
Lead Bureau of Planning and Sustainability				
Agency:				
No	Short Term	No	Not started.	No Progress
LT WF #4 —Complete an assessment to characterize high priority wildfire risk areas and recommend specific mitigation strategies.				
Lead Corporate GIS				
Agency:				
CHOOSE	CHOOSE	CHOOSE		CHOOSE
LT WF #5 —Explore avenues for funding wildfire interface home construction upgrades to low income homeowners.				
Lead Fire and Rescue				
Agency:				
CHOOSE	CHOOSE	CHOOSE		CHOOSE
WF —Act upon all Mitigation Actions outlined in the Wildfire GAP Analysis Report				
Lead Fire and Rescue				
Agency:				
CHOOSE	CHOOSE	CHOOSE		CHOOSE
IS #1 —Update Invasive Species Plants List by consolidating nuisance and prohibited plant lists into one “Nuisance Plants List” and assigning priority ranks to the Nuisance Plants List.				
Lead Bureau of Planning and Sustainability				
Agency:				
Yes	Short Term	No	Completed in 2010.	Complete
IS #2 —Clarify zoning regulations to require removal of plants on the Nuisance Plants List in the Environmental, Greenway and Pleasant Valley Natural Resources Overlay Zones and the Columbia South Shore and Johnson Creek Basin Plan Districts.				
Lead Bureau of Planning and Sustainability				
Agency:				
No	Short Term	Yes	There is no additional plan to require removal of all nuisance plants in the specific areas identified in the action. DROP.	No Progress
IS #3 —Initiate a process to ensure the Erosion Control Manual be made consistent with City goals to control and eradicate invasive plants. (planning)				
Lead Bureau of Development Services				
Agency:				
CHOOSE	CHOOSE	CHOOSE		CHOOSE

Action Taken?	Timeline	Priority Changed?	Comment (Describe progress or changed priority)	Status
<p>IS #4—Initiate a process to ensure the Tree and Landscaping Manual, the Recommended Street Tree List and the Stormwater Management Manual be made consistent with City goals to control and eradicate invasive plants. (planning) Lead Bureau of Planning and Sustainability Agency:</p>				
No	Long Term	Yes	There is no coordination committee in place. Tree and Landscaping Manual maintained by BDS, Recommended Street Tree List maintained by PP&R/Urban Forestry, SWMM maintained by BES. Any such project should be led by the BES Invasive Species Mgmt. Program.	No Progress
<p>IS #5—Coordinate with the Portland Plan project to help ensure that invasive species are addressed in the Comprehensive Plan update and Portland Plan work plan. (planning) Lead Bureau of Planning and Sustainability Agency:</p>				
Yes	Short Term	No	The draft Comprehensive Plan contains policies to manage and prevent the spread of invasive plants.	Complete
<p>IS #6—Research the feasibility of establishing a local noxious or invasive weed law. Lead Bureau of Planning and Sustainability Agency:</p>				
No	Short Term	No	Not started.	No Progress
<p>LT V #1—Work with the state and other impacted jurisdictions to implement and update the various volcano Inter-Agency Coordination Plans. Lead Portland Bureau of Emergency Management Agency:</p>				
Yes	Long Term	No	PBEM attends meetings regarding interagency volcano plans for Mt. St. Helens, Mt. Adams, and Mt. Hood	Ongoing
<p>V—Work with the state and other impacted jurisdictions to implement and update the various volcano Inter-Agency Coordination Plans. Lead Portland Bureau of Emergency Management Agency:</p>				
CHOOSE	CHOOSE	CHOOSE	Redundant - DROP.	CHOOSE



Handout #4: Plan Implementation and Maintenance Overview

Plan implementation and maintenance is the process by which the plan will be monitored, evaluated and updated.

We need to identify:

- How will the plan be monitored (e.g. how will implementation be tracked)?
- How will the plan be evaluated (e.g. what percentage of our actions have we made progress on)?
- When will the plan be updated (at least once every five years)?
- How can we make this update process easier (e.g. review any hazard events that cause loss of life and property annually)?
- How will the plan be integrated into existing plans and programs (e.g. create linkage between other planning efforts)?
- How will the public continue to be involved (e.g. annual public forum, make plan available at public libraries)?
- May want to consider how funding opportunities will be monitored.