**CITY OF PACIFIC**
**ORDINANCE NO. 2014-1884**

AN ORDINANCE OF THE CITY OF PACIFIC, APPROVING AND ADOPTING THE UPDATED KING COUNTY REGIONAL HAZARD MITIGATION PLAN AS APPROVED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA).

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WHEREAS, King County supports disaster mitigation efforts and regional disaster planning; and

WHEREAS, a locally adopted plan reviewed and approved by Federal Emergency Management Agency (FEMA) is required under the Disaster Mitigation Act of 2000 (Public Law 106-390), a federal act to amend the Robert T. Stafford Disaster Relief and Emergency Assistance Act to authorize a program for predisaster mitigation, to streamline the administration of disaster relief, to control the Federal costs of disaster assistance; and

WHEREAS, regular revisions and updates to the five year plan are required by FEMA; and

WHEREAS, in October 2004, the King County Council approved the County's initial five year Regional Hazard Mitigation Plan; and

WHEREAS, In December of 2009, the King County Council approved the subsequent update of the Regional Hazard Mitigation Plan; and

WHEREAS, an updated plan is now required to comply with the Disaster Mitigation Act of 2000, and

WHEREAS, the City of Pacific and other jurisdictions within King County have a cooperative interest in disaster mitigation planning efforts, and

WHEREAS, additional agencies are expected to annex to this plan following FEMA approval, and

WHEREAS, FEMA approval of this plan enables the County to seek Federal mitigation project funding related to potential hazards the region may experience over the next five year planning period; and

WHEREAS, certification of the King County Council's approval of this plan is required for FEMA final approval; Now, therefore,

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF PACIFIC, WASHINGTON AS FOLLOWS:

SECTION 1. The City Council of the City of Pacific hereby approves and adopts the King County Regional Hazard Mitigation Plan, which is attached to this Ordinance as "Attachment A" and incorporated herein by this reference.

SECTION 2. The Pacific City Council authorizes the King County Office of Emergency Management to make any required FEMA revisions to updated King County Regional Hazard Mitigation Plan required by FEMA final approval.

SECTION 3. This Ordinance shall be published in the official newspaper of the City of Pacific and shall take effect and be in full force five days after the date of publication.

PASSED BY THE CITY COUNCIL AT A REGULAR MEETING THEREOF ON THE 8TH DAY OF DECEMBER, 2014.

CITY OF PACIFIC

Leanne Guier

Leanne Guier, Mayor

ATTEST/AUTHENTICATED

Amy Stevenson-Ness

Amy Stevenson-Ness, City Clerk

APPROVED AS TO FORM

Carol Morris, City Attorney

King County

# King County Regional Hazard Mitigation Plan Update

EXECUTIVE SUMMARY

Agency Review Submittal
July 2014

TETRA TECH

# EXECUTIVE SUMMARY

Hazard mitigation is the use of long-term and short-term policies, programs, projects, and other activities to alleviate the death, injury, and property damage that can result from a disaster. King County and a partnership of local governments within the County have developed and maintained a regional hazard mitigation plan to reduce risks from natural disasters. The plan complies with hazard mitigation planning requirements to maintain eligibility for funding under Federal Emergency Management Agency grant programs.

## PREVIOUS HAZARD MITIGATION PLANNING IN KING COUNTY

Federal regulations require periodic updates of hazard mitigation plans to reevaluate recommendations, monitor the impacts of actions that have been accomplished, and determine if there is a need to change the focus of mitigation strategies. A jurisdiction covered by a plan that has expired is no longer in compliance with the federal requirements for hazard mitigation planning.

King County and a coalition of 39 planning partners prepared an initial hazard mitigation plan that was approved by the Federal Emergency Management Agency in November 2004. This document represents the second comprehensive update (the first update was made in 2009). The 2009 plan update process was truncated after back-to-back disasters in 2009—January flooding and March snowstorms—and the emergence of a significant flooding threat in the Green River Valley due to problems at Howard Hanson Dam. The truncated process resulted in a significant decrease in planning partners covered by the regional plan (12 local governments). Many of the original planning partners developed their own plans or let their plans expire. This 2014 update is a return to a truly regional planning effort. Fifty-four local governments are covered by this plan update, including King County, 26 city and town governments, and 27 special purpose districts, as listed in Tables ES-1 and ES-2.

The team that prepared the current update also prepared a five-year progress report of actions completed by all planning partners whose existing plan is replaced by this update. In the reporting period covered by the report, the partners started or completed 165 of 283 initiatives, 58 percent.

**TABLE ES-1.**
**MUNICIPAL PLANNING PARTNERS**

| | | |
|---|---|---|
| King County | City of Issaquah | City of Renton |
| City of Algona | City of Kent | City of SeaTac |
| City of Auburn | City of Kirkland | City of Shoreline |
| City of Bothell | City of Maple Valley | City of Snoqualmie |
| City of Burien | City of Medina | City of Tukwila |
| City of Carnation | City of Mercer Island | City of Woodinville |
| City of Clyde Hill | City of North Bend | Town of Beaux Arts Village |
| City of Duvall | City of Pacific | Town of Hunts Point |
| City of Federal Way | City of Redmond | Town of Skykomish |

**TABLE ES-2.**
**SPECIAL PURPOSE DISTRICT PLANNING PARTNERS**

| | |
|---|---|
| Coal Creek Utility District | Shoreline Fire |
| Covington Water District | Skyway Water & Sewer District |
| Highline Water District | Soos Creek Water & Sewer District |
| Kent Fire | Southwest Suburban Sewer District |
| Kent School District | Valley Regional Fire Authority |
| King County Fire District No. 2 | Valley View Sewer District |
| King County Fire District No. 45 | Vashon Island Fire & Rescue |
| King County Hospital District No. 2 (EvergreenHealth) | Water District 111 |
| Midway Sewer District | Water District 125 |
| North City Water District | Water District 19 |
| Public Hospital District No. 1 (Valley Medical) | Water District 20 |
| Riverview School District | Water District 90 |
| Ronald Wastewater District | Woodinville Water District |
| Sammamish Plateau Water & Sewer District | |

## PLAN UPDATE PROCESS

Updating the plan consisted of the following phases:

- **Phase 1, Organize and Review**—A planning team was assembled for the plan update, consisting of staff from the King County Office of Emergency Management and a technical consultant. The team conducted outreach to establish the planning partnership. A 19-member steering committee was assembled to oversee the plan update, consisting of planning partner staff, citizens, and other stakeholders in the planning area. Coordination with other county, state and federal agencies involved in hazard mitigation occurred throughout the plan update process. This phase included a review of the existing plan, the Washington State Hazard Mitigation Plan, and existing programs that may support hazard mitigation actions.

**Phase 2, Update the Risk Assessment**—Risk assessment is the process of measuring the potential loss of life, personal injury, economic injury, and property damage resulting from natural hazards. This process assesses the vulnerability of people, buildings and infrastructure to natural hazards. Risk assessment models were enhanced with new data and technologies that have become available since 2009. The risk assessment included the following:

- Hazard identification and profiling
- Assessment of the impact of hazards on physical, social and economic assets
- Vulnerability identification
- Estimates of the cost of potential damage.

Planning partners used the risk assessment to rank risk and to gauge the potential impacts of each hazard of concern on their jurisdiction. The mitigation actions recommended in this plan include some that address limitations in the modeling caused by insufficient data. For example, in light of the Oso landslide, King County has initiated an effort identified as an action item in this plan to better characterize landslide risks in the County.

- **Phase 3, Engage the Public**—The planning team implemented a public involvement strategy developed by the Steering Committee. The strategy included public meetings to present the risk assessment and the draft plan, a hazard mitigation survey, a County-sponsored website, and multiple media releases.
- **Phase 4, Assemble the Updated Plan**—The planning team and Steering Committee assembled a document to meet federal hazard mitigation planning requirements for all partners. The updated plan contains two volumes. Volume 1 contains components that apply to all partners and the broader planning area. Volume 2 contains all components that are jurisdiction-specific. Each planning partner has a dedicated annex in Volume 2.
- **Phase 5, Plan Adoption/Implementation**—Once pre-adoption approval has been granted by Washington State's Emergency Management Division and FEMA Region X, the final adoption phase will begin. Each planning partner will individually adopt the updated plan. The plan maintenance process includes a schedule for monitoring and evaluating the plan's progress periodically and producing a plan revision every 5 years. This plan maintenance strategy also includes processes for continuing public involvement and integration with other programs that can support or enhance hazard mitigation.

## RISK ASSESSMENT RESULTS

Based on the risk assessment, hazards were ranked as follows for the risk they pose to the overall planning area:

1. Earthquake (High)
2. Severe Weather (High)
3. Severe Winter Weather (High)
4. Flood (Medium)
5. Landslide (Medium)
6. Wildfire (Medium)
7. Dam Failure (Low)
8. Avalanche (Low)
9. Volcano (Low)
10. Tsunami (Low).

Each planning partner also ranked hazards for its own area. Table ES-3 summarizes the categories of high, medium and low (relative to other rankings) based on the numerical ratings that each jurisdiction assigned each hazard. The results indicate the following general patterns:

- Earthquake, severe weather and severe winter weather generally ranked as the highest risks.
- Tsunami and avalanche were not ranked by most jurisdictions.
- Tsunami, volcano and wildfire tended to receive medium or low rankings based on the geographic location of each jurisdiction. Tsunami was ranked as a higher risk for coastal communities; wildfire was ranked higher for jurisdictions located farther from the highly developed areas near Puget Sound. Volcano was ranked higher for jurisdictions in the southwestern portion of the County near lahar hazard areas.
- Dam failure, volcano and wildland fire tended to have low ratings.

**TABLE ES-3.**
**SUMMARY OF HAZARD RANKING RESULTS**

| | Number of Jurisdictions Assigning Ranking to Hazard | | | |
|---|---|---|---|---|
| | High | Medium | Low | Not Ranked |
| Avalanche | 0 | 0 | 6 | 48 |
| Dam Failure | 1 | 8 | 20 | 25 |
| Earthquake | 49 | 5 | 0 | 0 |
| Flood | 10 | 25 | 17 | 2 |
| Landslide | 5 | 28 | 17 | 4 |
| Severe Weather | 40 | 13 | 1 | 0 |
| Severe Winter Weather | 44 | 9 | 1 | 0 |
| Tsunami | 0 | 3 | 11 | 40 |
| Volcano | 0 | 11 | 34 | 9 |
| Wildland Fire | 3 | 5 | 26 | 10 |

## MITIGATION GUIDING PRINCIPLE, GOALS AND OBJECTIVES

The following principle guided the Steering Committee and the planning partnership in selecting the initiatives contained in this plan update:

> King County is a region that promotes community resilience by eliminating or reducing risks and adverse impacts from hazards, while encouraging hazard mitigation activities by all sectors.

The Steering Committee and the planning partnership established the following goals for the plan update:

1. Protect life and property.
2. Increase public awareness of hazards and mitigation opportunities.
3. Protect, restore and enhance environmental quality.
4. Leverage partnering opportunities.
5. Enhance planning activities.
6. Develop and implement cost-effective mitigation strategies.
7. Promote a sustainable economy.

The following objectives were identified that meet multiple goals, helping to establish priorities for recommended mitigation actions:

1. Increase the resilience of critical facilities, infrastructure and government operations to ensure continuity of operations during and after a hazard event.
2. Consider the impacts of hazards in all planning mechanisms that address current and future land uses and integrate hazard mitigation goals and objectives into other existing plans and programs within the planning area.

3. Develop, improve and protect systems that provide early warnings, emergency response communications and evacuation procedures.
4. Use the best available data, science and technologies to improve understanding and stakeholder awareness of the location and potential impacts of hazards, the vulnerability of building types and community development patterns, and the measures needed to mitigate hazards.
5. Seek feasible mitigation projects that provide the highest degree of hazard protection with the best benefit-cost ratio.
6. Emphasize the hazard mitigation message in and promote the value of public outreach and education programs, such as Take Winter By Storm and What to Do to Make it Through.
7. Improve coordination among all sectors to mitigate hazards.
8. Reduce hazard-related risks and vulnerability to potentially isolated populations within the planning area.
9. Retrofit, purchase or relocate structures in high hazard areas, including those known to be repetitively damaged.
10. Strengthen codes to improve the hazard resilience of new construction.
11. Leverage social networks and other social capital mechanisms to educate the public and stakeholders and promote resilience.
12. Seek actions that protect or improve the environment for future environmental conditions.
13. Form private/public partnerships to leverage and share resources.
14. Partner with the private sector, including small businesses, to promote hazard mitigation as part of standard business practice.
15. Educate businesses about contingency planning countywide, targeting small businesses and those located in high risk areas, and promote employee education about disaster preparedness while on the job and at home.

## MITIGATION ACTIONS

Mitigation actions presented in this update are activities designed to reduce or eliminate losses resulting from natural hazards. The update process resulted in the identification of nearly 700 mitigation actions for implementation by individual planning partners, as presented in Volume 2 of this plan. In addition, the steering committee and planning partnership identified seven countywide initiatives benefiting the whole partnership, as listed in Table ES-4.

## IMPLEMENTATION

Full implementation of the recommendations of this plan will require time and resources. The measure of the plan's success will be its ability to adapt to changing conditions. King County and its planning partners will assume responsibility for adopting the recommendations of this plan and committing resources toward implementation. The framework established by this plan commits all planning partners to pursue initiatives when the benefits of a project exceed its costs. The planning partnership developed this plan with extensive public input, and public support of the actions identified in this plan will help ensure the plan's success.

**TABLE ES-3.**
**ACTION PLAN—COUNTYWIDE MITIGATION ACTIONS**

| Hazards Addressed | Lead Agency | Possible Funding Sources or Resources | Time Line[a] | Objectives |
|---|---|---|---|---|
| **CW-1**—Continue to participate in and support the "Resilient King County" initiative. | | | | |
| All hazards | King County Office of Emergency Management (OEM) | Local, possible grant funding (FEMA, DHS) | Ongoing | 1, 3, 4, 7, 13, 14, 15 |
| **CW-2**—Continue to maintain a website that will house the regional hazard mitigation plan, its progress reports and all components of the plan's maintenance strategy to provide the planning partners and public ongoing access to the plan and its implementation. | | | | |
| All Hazards | King County OEM | King County OEM operating budget | Ongoing | 4, 6, 7, 11, 15 |
| **CW-3**—Continue to leverage/support/enhance ongoing, regional public education and awareness programs (such as "Take Winter by Storm and "Make it Through") as a method to educate the public on risk, risk reduction and community resilience. | | | | |
| All Hazards | King County and all planning partners | Local | Ongoing | 4, 6, 7, 11, 13, 14, 15 |
| **CW-4**—Continue to support the use, development and enhancement of a regional alert and notification system. | | | | |
| All Hazards | King County OEM | Local, possible grant funding (FEMA, DHS, NWS, NOAA) | Ongoing | 3, 4, 7, 13 |
| **CW-5**—Strive to capture time-sensitive, perishable data—such as high water marks, extent and location of hazard, and loss information—following hazard events to support future updates to the risk assessment. | | | | |
| All hazards | All Planning partners | Local, FEMA (PA) | Short-term | 4, 7 |
| **CW-6**—Encourage signatories for the regional coordination framework for disasters and planned events. | | | | |
| All Hazards | King County OEM | Local | Ongoing | 3, 7, 13, 14 |
| **CW-7**—Continue ongoing communication and coordination in the implementation of the King County Regional Hazard Mitigation Plan and the 2013 King County Flood Hazard Management Plan. | | | | |
| Flood | King County OEM, King County Department of Natural Resources & Parks, King County Flood Control District | Local | Ongoing | 2, 4, 5, 7, 10, 12 |