

Umatilla, Oregon Natural Hazard Mitigation Plan



Umatilla, Oregon
Adopted June 5, 2007 [Resolution 22-2007]
City Council Approved Revision July 2, 2009

Prepared by:
Umatilla County Emergency Management
and
Oregon Natural Hazards Workgroup
University of Oregon
Eugene, OR

Section 1

Introduction

The City of Umatilla developed this Natural Hazards Mitigation Plan in an effort to reduce future loss of life and property resulting from natural disasters. The plan recommends actions and identifies resources to assist local citizens, public agencies, and private sector organizations within the community in reducing their risk to natural hazards. The plan additionally helps the city become eligible to apply for Federal funding for natural hazard mitigation and recovery activities. The city's plan assists the region's multi-jurisdictional planning effort by serving as an addendum to the Umatilla County Natural Hazard Mitigation Plan.

How was the Plan Developed?

Umatilla is committed to assisting the regional planning effort by working collaboratively with other jurisdictions to reduce the region's risk to future natural hazard events. Natural hazard events have the ability to affect multiple jurisdictions and cross jurisdictional boundaries. Additionally, the costs associated with natural disasters have increased dramatically over the past decades. These factors have helped foster interest in collaborative natural hazard mitigation planning efforts. The city, along with the county, is participating in a regional mitigation planning initiative that covers over 1/3 of the geographic area of Oregon and nearly 1/3 of the counties. Oregon Emergency Management established eight natural hazards planning regions; this initiative includes the Mid-Columbia and the Southeast Oregon Regions. The planning effort was developed and facilitated by the Oregon Natural Hazards Workgroup at the University of Oregon's Community Service Center, and Oregon Emergency Management.

Who Participated in Developing the Plan?

Once the final draft of the Umatilla County Natural Hazards Mitigation Plan became available in January 2007, the Umatilla City Council and the City Planning Commission began development of a draft NHMP, based upon a template provided by the County NHMP planner. After several public work sessions, the Planning Commission forwarded the Plan to the City Council for review and eventual adoption.

Planning Process

- In January, 2004 the County notified the City of the requirement of the National Disaster Mitigation Act of 2000 that all jurisdictions eligible for FEMA mitigation project grants must develop and implement a natural hazards mitigation plan.

- Umatilla City Administrator Larry Clucas was appointed as the City's liaison for the County's NHMP process.
- In June, 2004 city staff members participated in a hazards mapping workshop hosted by the County.
- The County NHM Planner provided a template draft plan to the City to provide the basic information required for the plan.
- The County NHM Planner provided a template draft plan to the City to provide the basic information required for the plan. The template plan was initially reviewed by the Planning Commission on January 4, 2007 and by the City Council on January 9, 2007.
- The final draft of the Umatilla County NHMP was provided to the City for its review on April 10, 2007.
- Public comment was invited at the Planning Commission meeting [April 26, 2007] and City Council meetings [May 1, 2007 and June 5, 2007].
- The Umatilla City Council adopted the Plan on June 5, 2007, [Resolution 22-2007] conditioned upon final review of the FEMA-approved County NHM Plan.
- In February 2009, the NHM Planner provided the City with a copy of the FEMA-approved Plan for the City's review.
- On June 2, 2009, the City Council reviewed the updated County NHMP and the revised City NHMP as proposed by the NHM Planner.
- On July 2, 2009, the City Council approved submittal of the revised NHMP to FEMA for review.
- Section 1-3 of the Umatilla County NHMP provides a summary of the larger regional planning process. Note that Umatilla City Administrator Larry Clucas and Umatilla Rural Fire Chief Mike Roxbury were members of the Umatilla County NHMP Stakeholders Committee.

Mitigation Action Plan

What is the Plan Mission?

The mission of the City of Umatilla's Natural Hazards Mitigation Plan is to prevent loss and protect life, property and the environment from the risk of natural hazards through coordination and cooperation among public and private partners.

What are the Plan Goals?

The plan goals of the Mitigation Plan are broad statements to help focus future mitigation efforts. Plan goals act as a bridge between the overall mission of the Mitigation Plan and the specific action items identified to reduce the City's risk from identified hazards (wildfire, flood, severe winter storms, windstorms, earthquake, volcano, and drought).

The plan goals are based upon those adopted in the Umatilla County Natural Hazards Mitigation Plan as well as those developed through staff research of natural hazards within the City and input from stakeholders, the public and the City Council. The six goals of the Mitigation Plan include:

- Goal #1: Property Protection
- Goal #2: Public Outreach
- Goal #3: Planned Prevention
- Goal #4: Agency/Citizen Coordination
- Goal #5: Natural Resource Protection
- Goal #6: Emergency Service Planning

What are the Plan Action Items?

The plan identifies action items developed through different plan inputs, such as data collection, research, and the public participation process. The action items identified by the plan are intended to help the city move toward achieving the plan goals. Action items address both multi-hazard and hazard-specific issues for the hazards addressed in this plan. For more information on the action items identified by the plan, see *Section 4: Umatilla Action Items*.

Each action item has a corresponding action item worksheet describing the activity, identifying the rationale for the project, identifying potential ideas for implementation, and assigning coordinating and partner organizations. These action item worksheets are located in Section 5 of this addendum. To facilitate implementation, worksheets

have been filled out describing each action item with the following information:

Rationale or Key Issues Addressed:

Action items should be fact based and tied directly to issues or needs identified throughout the planning process. Action items can be developed from a number of sources including participants of the planning process, noted deficiencies in local capability, or issues identified through the risk assessment.

Ideas for Implementation:

The ideas for implementation offer a transition from theory to practice. Ideas for implementation include things such as collaboration with relevant organizations, grant programs, tax incentives, human resources, education and outreach, research, and physical manipulation of buildings and infrastructure.

The City looked at existing plans and policies that might be used to implement action items identified by the plan. This can help maximize resources for project implementation. For example, the natural hazard mitigation actions can be added to projects identified in the City Transportation Plan.

Coordinating Organization:

The coordinating organization is the public agency with regulatory responsibility to address natural hazards, or that is willing and able to organize resources, find appropriate funding, or oversee activity implementation, monitoring, and evaluation.

Internal Partners:

Internal partner organizations are departments within the city that may be able to assist in the implementation of action items by providing relevant resources to the coordinating organization.

External Partners:

External partner organizations can assist the coordinating organization in implementing the action items in various functions and may include local, regional, state, or federal agencies, as well as local and regional public and private sector organizations.

The internal and external partner organizations listed in the Action Item Worksheets are potential partners recommended by the project steering committee, but not necessarily contacted during the development of the plan. The coordinating organization should contact the identified partner organizations to see if they are capable of and interested in participation. This initial contact is also to gain a commitment of time and/or resources towards completion of the action items.

Plan Goals Addressed

The plan goals addressed by each action item are identified as a means for monitoring and evaluating how well the mitigation plan is achieving its goals following implementation.

Timeline:

Action items include both short and long-term activities. Each action item includes an estimate of the timeline for implementation. *Short-term action items* (ST) are activities that may be implemented with existing resources and authorities within one to two years. *Long-term action items* (LT) may require new or additional resources and/or authorities, and may take between one and five years to implement.

How Will the Plan be Implemented?

The City Council will be responsible for adopting the City of Umatilla Natural Hazard Mitigation Addendum.

The city will follow the plan implementation and maintenance process outlined below. The City will designate a coordinating body, a convener, and develop a strategy for continued public involvement, but will utilize the project prioritization and plan maintenance methodology outlined in the county's plan.

Convener

The City Manager shall act as the convener, i.e., the primary contact for the city's plan revisions and addendum and will schedule meetings of the Planning Commission and City Council when necessary to discuss NHMP issues.

Coordinating Body

The City Council will serve as the coordinating body and will be responsible for coordinating the implementation of plan action items and undertaking the plan review process. The Council may task the City Planning Commission with periodic review and update recommendations for the Plan.

Continued Public Participation

Keeping the public informed of the city's efforts to reduce the city's risk to future natural hazards events is important for successful plan implementation and maintenance. The city is committed to involving the public in the plan review and update process by:

- keeping a copy of the plan for public viewing at City Hall.
- keeping a copy of the plan at the Umatilla City Library;
- providing public comment times at Planning Commission and City Council review meetings,
- posting updates and new information regarding the plan on the city's website;

- o posting updates and new information regarding the plan on the NHWS website [www.OregonShowcase.org]; and
- o providing a contact e-mail and phone number for public feedback.)

There may be opportunities for the city to partner with the county to conduct joint participating and outreach efforts.

Project Prioritization Process

Establishing and implementing a project prioritization process is important because it: (1) is a required element of the Disaster Mitigation Act of 2000, (2) can assist the Steering Committee make decisions about how to move forward and (3) can assist in directing the effective use of limited mitigation dollars.

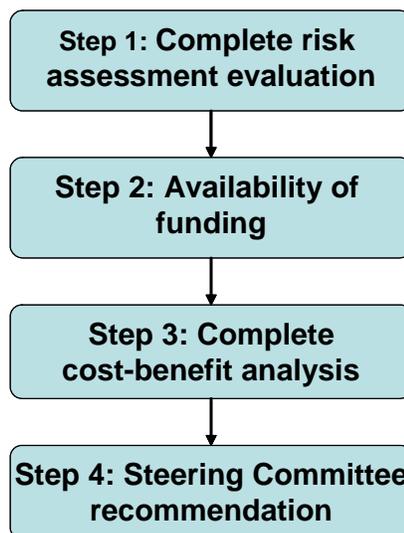
The following prioritization process was developed by the Oregon Natural Hazard Workgroup at the University of Oregon’s Community Service Center. The four step process described below results in a priority score of high, medium, or low for each action. The priority scores are based on the following three factors:

1. the risk assessment;
2. the availability of funding; and
3. a cost benefit analysis.

This methodology was used by Umatilla County to initially prioritize the plan’s action items during the development of the county’s plan and will also be used to update county action items during the plan’s annual review and update.

This methodology was also reviewed and used by the City Council to initially prioritize the city plan’s action items during the development of the city plan and will also be used to update the action items during the plan’s annual review and update.

Project Prioritization Process Overview



Source: ONHW/CPW, 2005

Step 1: Complete Risk Assessment Evaluation

The first step in prioritizing the plan's action items is to review the plan's risk assessment. The committee will determine whether or not the plan's Risk Assessment supports the implementation of the mitigation activity. This determination will be based on the location of the potential activity and the proximity to known hazard areas, historic hazard occurrence, and the probability of future occurrence documented in the plan. To rank the hazards, community's natural hazard risk assessment will be utilized.

Step 2: Availability of Funding

The committee will examine potential funding sources available for the proposed mitigation activity. Potential funding stream requirements will be assessed to ensure that the mitigation activity would be eligible through the funding source. The committee may consult with the funding entity, Oregon Emergency Management, or other appropriate state or regional organization about the project's eligibility.

Step 3: Complete Cost-Benefit Analysis

Depending on the type of project and the funding source, a quantitative assessment of cost effectiveness might be necessary. Conducting cost effectiveness analysis for a mitigation activity can assist communities in determining whether a project is worth undertaking now, in order to avoid disaster-related damages later. Cost-effectiveness analysis evaluates how best to spend a given amount of money to achieve a specific goal. Determining the economic feasibility of mitigating natural hazards provides decision-makers with an understanding of the potential benefits and costs of an activity, as well as a basis upon which to compare alternative projects.

If the activity is seeking federal funding for a structural project the committee will use a FEMA-approved cost-benefit analysis tool to evaluate the appropriateness of the activity. A project must have a benefit cost ratio of greater than 1 in order to be eligible for FEMA funding.

Step 4: Steering Committee Recommendation

The steering committee will assign the action a priority score of high, medium, or low based on the three steps above. The coordinating organization designated for the activity will be responsible for taking further action and document success upon project completion.

The steering committee and the community's leadership have the option to implement any of the action items at any time, (regardless or the prioritized order). This allows the committee to consider mitigation strategies as new opportunities arise, such as funding for action items that may not be of highest priority.

Plan Maintenance and Update

This plan will be updated every five years in accordance with the update schedule outlined in the Disaster Mitigation Act of 2000. During this plan update, the following questions should be asked to determine what actions are necessary to update the plan. The convener will be responsible for convening the Committee to address the questions outlined below.

- Are the plan goals still applicable?
- Do the plan's priorities align with State priorities?
- Are there new partners that should be brought to the table?
- Are there new local, regional, state, or federal policies influencing natural hazards that should be addressed?
- Has the community successfully implemented any mitigation activities since the plan was last updated?
- Have new issues or problems related to hazards been identified in the community?
- Do existing actions need to be reprioritized for implementation?
- Are the actions still appropriate given current resources?
- Have there been any changes in development patterns that could influence the effects of hazards?
- Have there been any significant changes in the community's demographics that could influence the effects of hazards?
- Are there new studies or data available that would enhance the risk assessment?
- Has the community been affected by any disasters? Did the plan accurately address the impacts of this event?

The questions above will help the City Council determine what components of the mitigation plan need updating. The Council will be responsible for updating any deficiencies found in the plan based on the questions above.

Umatilla County Natural Hazards Mitigation Plan Maintenance and Update

The Umatilla County Natural Hazards Mitigation Plan states [Section 1-8] that it will be evaluated on an annual basis to determine opportunities for making the Mitigation Plan more effective and to reflect changes that may effect mitigation and planning priorities. The Umatilla County Department of Resource Services & Development will

be responsible for contacting the Mitigation Plan Steering Committee members to organize an evaluation meeting.

Also, the Umatilla County Department of Resource Services & Development will update the Mitigation Plan every five years. Resource Services & Development will also coordinate with all holders of the Mitigation Plan when changes have been made. Every five years the updated plan will be submitted to the Oregon State Mitigation Officer and FEMA for review.

Umatilla County NHMP also notes that the:

...County has taken great strides to involve the general public throughout the planning process of the Mitigation Plan, and is dedicated to involving the public directly in review and updates of the Mitigation Plan. The Steering Committee is responsible for participating in the annual review of the Mitigation Plan and stakeholder members, including *agency and city representatives will be encouraged to participate either directly or through additional surveys and public presentations.*[emphasis added].

A public meeting will be held for each annual evaluation of the Mitigation Plan. The meetings will provide a public forum for expressing concerns, opinions or ideas about the Mitigation Plan. The Umatilla County Department of Resource Services & Development will be responsible for publicizing the public meetings and maintaining public involvement. [Section 1-8, pp. 11-12.]

The City of Umatilla convener [City Manager] will be responsible to insure that the City Council and city residents will participate in any aspect of the County's review that would impact the City's NHMP and that the city review process, described above, is coordinated with the County's.

Section 3

Community Profile

City of Umatilla, Oregon

PO Box 130, 300 6th Street, Umatilla, OR 97882

Phone 541-922-3226 • Fax 541-922-5758

Web Page <http://www.umatilla.org/> • E-Mail: umatilla@ucinet.com



City Location

County: Umatilla **Incorporated in** 1864

Location: Northeast Oregon, at the confluence of the Umatilla and Columbia rivers.

Nearest Major Highway and Distance: I-82 | Local

Recreational Amenities

Fishing, camping, sailing, waterskiing, Governor's Walleye Tournament, McNary Dam, 18-hole golf course, driving range, upland game, bird hunting, off track betting and museum.

Climate

Elevation: 296' **Measurement Location:** Hermiston

Temperature:

Monthly Ave. Low: 26°F **Monthly Ave. High:** 88°F

Hottest Month July **Coldest Month** January

Driest Month July **Wettest Month** December

Average annual precipitation: 9.060"

Humidity (Hour 10, local time):

Average July afternoon humidity: 34%

Average January afternoon humidity: 77%

Demographics

	Population							
	1980	1990	1998	1999	2000	2006	2007	2008
City of Umatilla	3,199	3,046	3,515	3,625	4,978	6,385	6,440	6,495

Housing

Total Housing Units	1970	1980	1990	2000
City of Umatilla	330	959	1,206	1,515

Source: US Census. Median value is the middle value, not an average.

Source: City Administration

Financial Institutions

Commercial Banks: 1 Savings and Loans: 0 Credit Unions: 0

Community Services and Resources

Public Safety/Emergency Services

Fire Station(s) serving community: Umatilla RFPD, 2 stations; Umatilla Tribal FD, 1 station

Number of paid and volunteer firefighters: 32

Source: Oregon State Fire Marshal, Oregon Fire Service Resource Directory 2000

Police Department: Umatilla Police Department

Number of paid and reserve officers: 19

Nearest Hospital and distance: Good Shepherd Community Hospital, 7 miles in Hermiston

Emergency services to community: Ambulance Service

General Clinic(s): 1

Communications Resources

Local Newspapers: Hermiston Herald

Regional Newspapers: Tri-City Herald, East Oregonian

Radio Stations: 1 FM; 3 AM

TV Stations: No local stations

Available Cable Television: USA Media

Telephone Service Provider(s): QWest

Local Internet Service Provider(s): Yes

Library System

2 public libraries

Infrastructure/Transportation

Water Supply

Operator: City of Umatilla

Source: Ground Water; 4 deep basalt wells

Supply: Capacity (MGD)—7.6; Pressure (PSI)—65.00 minimum

Current Water Utilization on Meter Size (MGD): 2.5 MGD

Age of Water System: 1936

Wastewater Treatment System

Operator: City of Umatilla **Age of Wastewater Collection System:** 1979

System Design Capacity (MGD): 1.00 MGD **System Utilization (MGD):** 0.50 MGD

Comment(s) on Wastewater System: Age of system: 2000

Storm Drain: No

Utilities

Telecommunications

Is there access to broadband infrastructure? Yes

Natural Gas—Provider: Cascade Natural Gas

Electrical—Provider: Pacific Power & Light, Umatilla Electric Co-op

Solid Waste Management: Sanitary Disposal

Transportation

Highways I-82 N/S route, local access; Hwy 730 E/W route, local access; Hwy 395 N/S route, local access

Rail Service: Yes Union Pacific

Freight Service: Yes Passenger Service: No

Marine Yes

Description: Port of Umatilla

Docks, Port Facilities: 50 ton receiving crane; electric service for 100 refrigerated containers. <http://www.portofumatilla.com>

Bus Service Available in the Community: No

Scheduled Bus Service Available: No Buses Per Day:

Local Charter Services: No

Distance to Nearest Bus Service: 7 miles

Trucking Service

Scheduled Freight Carrier Services: Yes

Overnight Express Parcel Service Available: Yes Fedex, United Parcel

Overnight Express Mail Service Available: Yes

Transportation Comments:

Source: City Administration, local chamber of commerce, local convention and visitor bureau, Oregon Climate Service, 1980, 1990, 2000 US Census; 1998, 1999, 2001, 2006 Center for Population Research and Census, Portland State University,

Critical Facilities

Critical facilities are those facilities that are essential to government response and recovery activities (e.g., police and fire stations, public hospitals, public schools). Critical facilities in the City of Umatilla are displayed on the Table and map below.

Umatilla Community Assets

Economic Resources:

- Port of Umatilla
- Two Rivers Correctional Institution
- Umatilla School District
- Union Pacific Railroad
- Bureau of Land Management
- Transportation – Rivers, Rail, Highways
- US Army Corps of Engineers

- Water Resources
- Bonneville Power Administration
- Umatilla Chemical Depot
- Retail Businesses
- Umatilla Marina and RV Park

Cultural and Historic Resources:

- Oregon Trail
- Lewis and Clark
- Confederated Tribes of the Umatilla Indian Reservation
- Umatilla Museum
- Oregon State Tourist Information Center
- McNary Dam Visitors Center
- Blue Mountain Community College
- Old Town Site
- City Library
- 6000 citizens

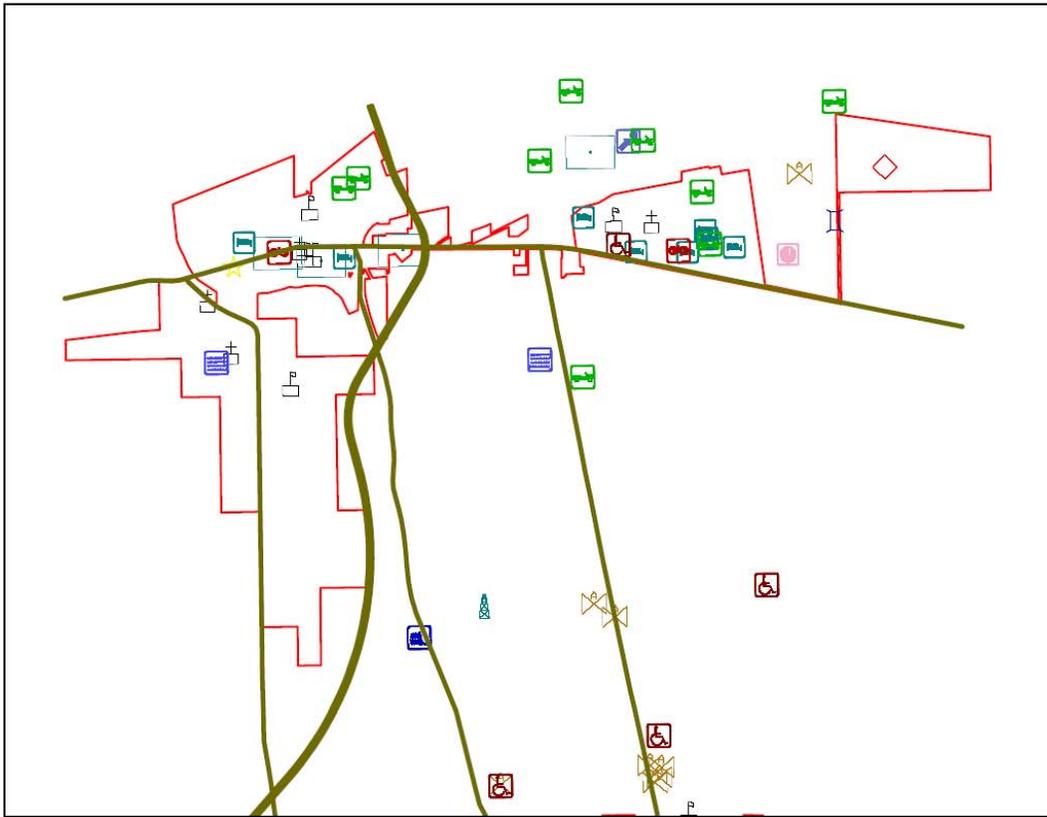
Critical Physical Facilities and Infrastructure:

- City Hall
- Water System
- Columbia River Bridge
- McNary Dam
- Water System
- Sanitary Sewage System
- Schools
- Bonneville Power Administration/ power grid
- ODOT POE
- Umatilla Rural Fire Protection District Facilities
- Marina
- Boat Launch above Dam
- Port of Umatilla [gasoline tanks, dock, loading crane, etc.]

Natural and Environmental Resources:

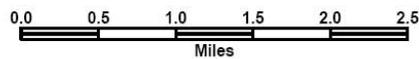
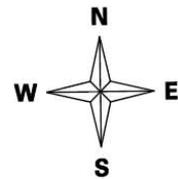
- Columbia and Umatilla Rivers
- City Parks [Hash, Kiwanis, Powerline, West]
- Wildlife Area [above and below dam]
- Marina
- Nature Trails [Hiking/Biking]
- McNary Beach

Umatilla Critical Facilities



Legend

- | | | |
|--|--|--|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |





Umatilla County GIS Dept
216 SE 4th St
Pendleton, OR 97801
541-278-6232

2-27-07

Sources: Roads by ODOT, City Limits limits downloaded from State Service Center for GIS
Facilities from FEMIS, Umatilla County Emergency Management

Section 4

Risk Assessment

An important component of the Umatilla Natural Hazards Mitigation Plan is the Risk Assessment. This section provides information on the process used to develop the City of Umatilla Risk Assessment, which addresses the following hazards: drought, earthquake, flood, landslide, volcanic event, wildfire, windstorm, and winter storm.

The City Planning Commission and City council examined the risk that the county plan identifies for each of the natural hazards addressed by the county plan. The Commission and Council determined if the risk described in the county's plan accurately describes the risk in the city. When the county's assessment of the risk to a specific hazard is accurate for the city, then the county's risk assessment is referenced for that particular hazard. When the Commission and Council determined that the county plan does not accurately reflect the city's risk, then the risk is described in the specific hazard sections below.

How was the Risk Assessment Developed?

On April 4, 2007 the City of Umatilla Planning Commission met to develop the city's Risk Assessment. To accomplish this task, the Commission completed the following tasks:

1. Gathered appropriate local hazard data for the hazards addressed in the plan;
2. Reviewed the county's risk assessment for each of the hazards addressed in the plan;
3. Determined whether or not the county's risk assessment accurately described the risk faced by the city;
4. If the county's risk assessment accurately described the risk in the city, the Commission documented this in the hazard specific sections below;
5. If the city's risk is greater than that described in the county's plan, the Commission documented the differences in the hazard specific sections below; and
6. The Commission created potential action items for noted deficiencies in local risk assessment data.
7. The City Council reviewed and accepted the Commission's findings at its meeting on May 1, 2007.

8. The City Council adopted the Plan on June 5, 2007.
9. The City Council reviewed proposed revisions and updates to the Risk Assessment and Plan on June 2, 2009.
10. The City Council approved the revised Risk Assessment and Plan on July 2, 2009 for submittal to FEMA for review.

Hazard Specific Risk Assessments

This section provides information for the risk assessments for the hazards affecting the City of Umatilla. The accompanying tables depict the hazards, history, vulnerability, maximum threat, probability and possible mitigation measures, as determined by Umatilla County Emergency Management, in collaboration with Umatilla city staff and citizens.



City staff participated in a multi-jurisdictional hazard/resource mapping workshop and mitigation action item brainstorming session hosted by Umatilla County Emergency Management on June 17, 2004.

Community Hazard Risk Assessment Summary

As noted, the City used the same hazard risk assessment methodology that the County used for its Natural Hazard Mitigation Plan and the Umatilla County Emergency Operations Plan.

In analyzing the risk posed by specific hazards, rating criteria and weighting factors have been used. This point-value formula is based on the following¹:

- High = 10 points
- Moderate = 5 points
- Low = 1 point

Weighting factors are determined by the following:

1. **Event History** is based on the number of incidents equivalent to a major emergency. **Weighting Factor is 2.**

- **High** = 4 or more events in last 100 years = 20
 - **Moderate** = 2 or 3 events in last 100 years = 10
 - **Low** = 1 or 0 events in last 100 years = 2
2. **Vulnerability** is based on the percentage of population or property likely to be affected. **Weighting Factor is 5.**
- **High** = More than 10% of population affected = 50
 - **Moderate** = 1-10% of population affected = 25
 - **Low** = Less than 1% of population affected = 5
3. **Maximum Threat** is based on the percentage of population or property that could be affected in a worst-case incident. **Weighting Factor is 10.**
- **High** = > 25% of population potentially affected = 100
 - **Moderate** = 5-25% of population potentially affected = 50
 - **Low** = < 5% of population potentially affected = 10
4. **Probability** is based on the likelihood of an occurrence happening within a specified period of time. **Weighting Factor is 7.**
- **High** = One incident within a 10-year period = 70
 - **Moderate** = One incident within a 50-year period = 35
 - **Low** = One incident within a 100-year period = 7

Natural Hazards Risk Analysis for Umatilla County, Oregon

Natural Hazard and Risk Score	History	Vulnerability	Max Threat	Probability
Weather (240)	High 20	High 50	High 100	High 70
Hazmat (165)	High 20	Moderate 25	Moderate 50	High 70

Natural Hazard and Risk Score	History	Vulnerability	Max Threat	Probability
Flood (165)	High 20	Moderate 25	Moderate 50	High 70
Fire (165)	High 20	Moderate 25	Moderate 50	High 70
Earthquake (162)	Low 2	Moderate 25	High 100	Moderate 35

From: Umatilla County Emergency Operations Plan, December 17, 2003, p.11.

Drought

Hazard	Location	History	Vulnerability	Maximum Threat	Probability	Risk Score
Drought	City-wide	Moderate 10	Low 5	High 50	Moderate 35	100

City-County Hazards Analysis, 2004

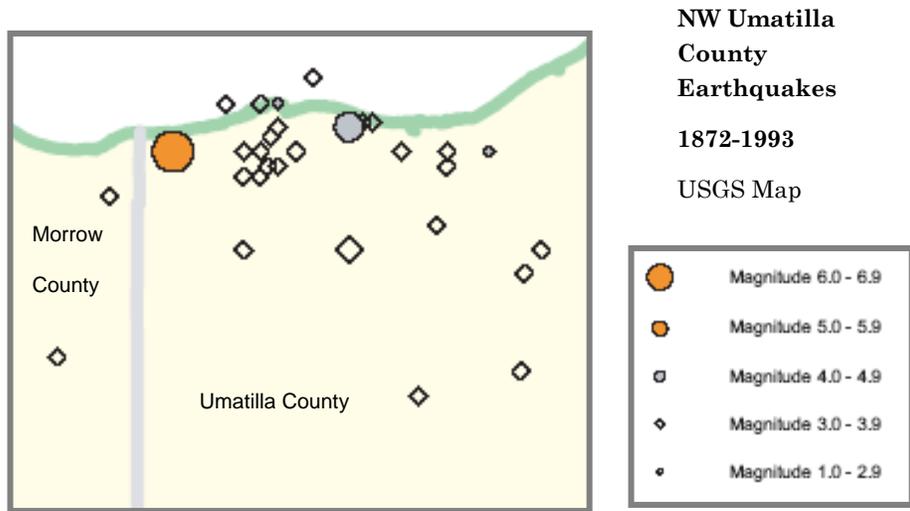
Drought involves a period of prolonged dryness resulting from a lack of precipitation or diversion of available water supplies. Umatilla County has suffered periods of drought in the past; however the main impact of drought has been on agriculture, fish, and wildlife, as well as an increased fire risk. A severe drought could require strict water conservation/regulatory measures to ensure adequate supplies of raw and treated/potable water.

Umatilla County Natural Hazards Mitigation Plan, 2006, [draft]

Additional information regarding the drought risk assessment for the Mid-Columbia Region of Oregon can be found in Appendix F, pp. 3-4.

The City of Umatilla has determined that Umatilla County's NPHP accurately identifies the community's risk to the drought hazard which is basically the same as that for the County. Risk assessment information for drought can be found in Section 3 of the county plan. . [Drought related Action Items are located in Section 4-9 of the county plan and are included herein as part of Appendix C.]

related Action Items are located in Section 4-6 of the county plan and are included herein as part of Appendix C.]



Flood

Hazard	Location	History	Vulnerability	Maximum Threat	Probability	Risk Score
Flood	Flood plain	Moderate 10	Moderate 25	Moderate 50	Moderate 35	125

City-County Hazards Analysis, 2004

Flood Plain Description: Umatilla is affected by two flood plains. One is from the Umatilla River and the other is from the Columbia River. Umatilla River flooding affects only a small area, currently containing athletic fields and part of the city park. Columbia River flooding affects an area along the north edge of town, currently not developed, probably due to the FEMA flood mapping. River Road ...has several places where Umatilla River high water could possibly block the road. ...There are several residential sites that would be affected by flooding or flooding blocked access.

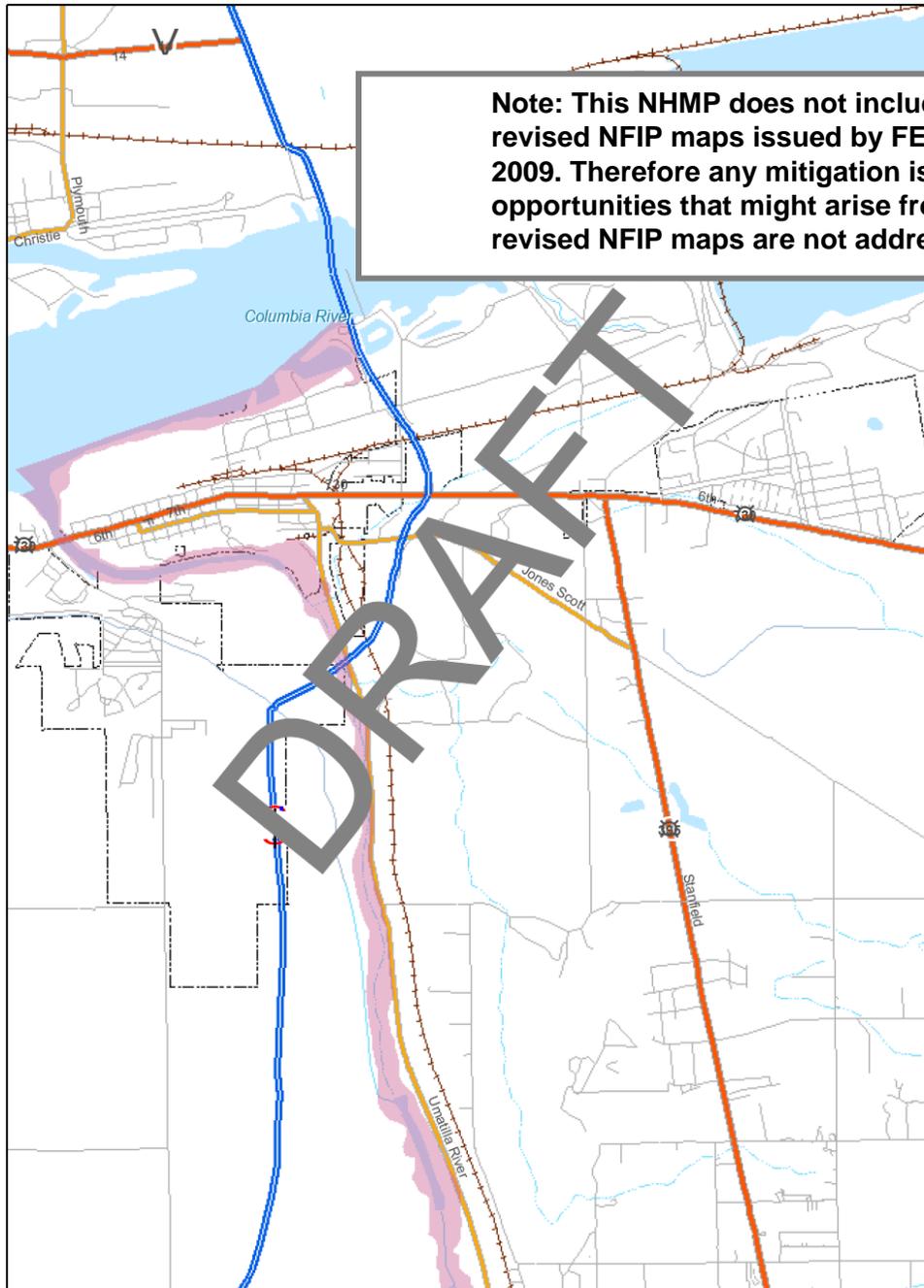
Type of Flooding: Flooding in Umatilla can be characterized as *limited* flooding. Sandbagging or berming may be possible along River Road to stop the spread of localized flooding. No infrastructure is threatened by flooding. ...Raising the flood-prone segments of River Road above the flood elevation could prevent flooding there. A levee and/or floodwalls built along the Columbia River could protect the threatened north part of Umatilla from flooding. *Report of Flood Fight Potential Sites in Umatilla County, Oregon Rev. 1, USACE*

Additional information regarding the flood risk assessment for the Mid-Columbia Region of Oregon can be found in Appendix F, pp. 16-19.

The City of Umatilla has determined that the County's plan accurately identifies the community's risk to the flood hazard which is basically the same as that for the County. Risk assessment information for flood can be found in Section 3 of the county plan. [Flood related County Action Items are located in Section 4-3 of the county plan and are included herein as part of Appendix C.]

PRELIMINARY map of 100 and 500 year flood zones in Umatilla County

Umatilla



Note: This NHMP does not include the draft revised NFIP maps issued by FEMA Spring, 2009. Therefore any mitigation issues or opportunities that might arise from the revised NFIP maps are not addressed herein.



100 and 500 year flood zone

Q3 Flood Data provided by FEMA

Volcanic Event

	Location	History	Vulnerability	Maximum Threat	Probability	Risk Score
Volcanic Ash	City-wide	Low 2	Low 5	Low 10	Low 7	24

City-County Hazards Analysis, 2004

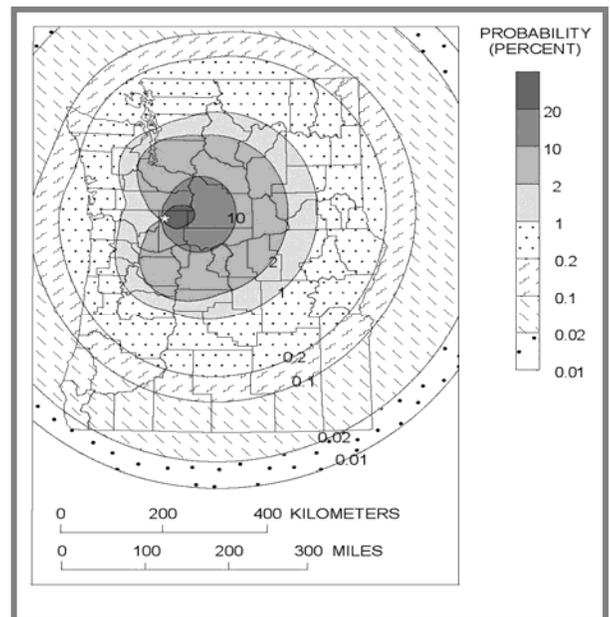
. While Mount St. Helens is more than 200 miles from Umatilla County it remains a potential hazard that could affect the lives of residents of Umatilla County....[T]he likely hood of ash or Tephra Fall in Umatilla County is relatively remote. The chart below illustrates the statistical probability at 1% annually. The Hazard Assessment for Volcanic Eruption is “moderate”.*

Umatilla County NHMP, 2006 p.

* Wolfe, Edward W. and Pierson, Thomas C. 1995 Volcanic-Hazards Zonation for Mount St. Helens, Washington, 1995 Open-File Report 95-497

Additional information regarding the volcano-related hazards for the Mid-Columbia Region of Oregon can be found in Appendix F, pp. 23-24.

The City of Umatilla has determined that the county’s plan accurately identifies the community’s risk to the volcanic hazard which is basically the same as that for the County. Risk assessment information for volcanic events can be found in Section 3 of the county plan. [Volcano related County Action Items are located in Section 4-7 of the county plan and are included herein as part of Appendix C.]



Wildfire

Hazard	Location	History	Vulnerability	Maximum Threat	Probability	Risk Score
Wildfire	Open space surrounding city	High 20	Moderate 25	Moderate 50	High 70	165

City-County Hazards Analysis, 2004

Umatilla County NHMP Action Items:

Note: The *Umatilla County Community Wildfire Protection Plan* [2005] lays out action items to deal with pre-fire disaster mitigation planning.

Short-Term Fire #1	Work with agriculture and conservation groups to establish fire buffers between developed and resource lands
Long-Term Fire #1	Work with citizens of Umatilla County to assure that all areas are protected under a rural fire district

Additional information regarding the wildfire risk assessment for the Mid-Columbia Region of Oregon can be found in Appendix F, pp. 11-15.

The City of Umatilla is included in a list of communities in the vicinity of Federal lands at risk from wildfire.

Federal Register, Vol. 66, No. 160, p. 43418.

The City of Umatilla has determined that Umatilla County's NHMP accurately identifies the community's risk to the wildfire hazard which is basically the same as that for the County. Risk assessment information for wildfire can be found in Section 3 of the county plan. [Wildfire related County Action Items are located in Section 4-2 of the county plan and are included herein as part of Appendix C.]

Windstorm

Hazard	Location	History	Vulnerability	Maximum Threat	Probability	Risk Score
Windstorm	City-wide	High 20	Moderate 25	High 100	High 70	215

City-County Hazards Analysis, 2004

Additional information regarding the windstorm risk assessment for the Mid-Columbia Region of Oregon can be found in Appendix F, pp. 26-28.

The City of Umatilla has determined that the county's plan accurately identifies the community's risk to the windstorm hazard which is basically the same as that for the County. Risk assessment information for windstorm can be found in Section 3 of the county plan. [Windstorm related County Action Items are located in Section 4-4 of the county plan and are included herein as part of Appendix C.]

Winter Storm

Hazard	Location	History	Vulnerability	Maximum Threat	Probability	Risk Score
Winter Storm	City-wide	High 20	Low 5	Moderate 50	High 70	145

City-County Hazards Analysis, 2004

Additional information regarding the winter storm risk assessment for the Mid-Columbia Region of Oregon can be found in Appendix F, pp. 30-31.

The City of Umatilla has determined that the county's plan accurately identifies the community's risk to the winter storm hazard which is basically the same as that for the County. Risk assessment information for winter storm can be found in Section 3 of the county plan. [Severe Winter Storm related County Action Items are located in Section 4-5 of the county plan and are included herein as part of Appendix C.]

Natural Hazards Risk Analysis for the City of Umatilla and Umatilla County

CITY OF UMATILLA HAZARD	CITY SCORE	COUNTY SCORE
1. Drought	100	240*
2. Earthquake	195	162
3. Flood	125	165
4. Volcanic Event	24	-
5. Wildfire	165	165
6. Windstorm	215	240*
7. Winter Storm	145	240*

* Drought, Windstorm and Winter Storm were combined in the County NHMP hazards analysis.

Section 5

Mitigation Action Items

This section lists the city’s action items and provides information on the process used to develop the city’s action items. Action items are detailed recommendations for activities that local departments, citizens and others could engage in to reduce risk to the natural hazards addressed by this plan.

How Were the Action Items Developed?

Action Items were developed by the Planning Commission, City Council and City Staff. Public input was encouraged. Ideas for Action Items were formatted by city staff and the NHMP planner.

Mitigation Plan Action Items

The City of Umatilla concurs with and adopts the Umatilla County Action Items adopted by Umatilla County on [date] and included herein as Appendix C. Specifically, the City adopts, and will actively support, the following County NHMP Action Items:

Umatilla County NHMP Action Items Specifically Adopted by the City of Umatilla										
Action Item Number	Action Item	Coord. Org.	Partner Organizations	Timeline	Plan Goal Addressed					
					Property Protection	Public Outreach	Planned Prevention	Agency Coordination	Nat. Resource Protection	Emerg. Serv. Planning
ST-MH 1	Complete City Addendums	UCEM	...includes Cities	1 Year	X	X	X	X	X	X
ST-MH 2	Public Awareness Program	UCEM	...includes Cities	1-2 Years	X	X	X	X		
ST-MF 3	Hazard Safety Education	UCEM	...includes city response agencies	Ongoing	X	X	X	X	X	X
ST-Flood 3	Develop FIRM Database	UCEM	...includes Cities	5 Years		X	X	X		
LT-Flood 3	Identify Susceptible	Umatilla County	ODOT, USACE,	5 Years	X		X	X		X

	Bridges	Road Department	CTUIR, FEMA, DSL							
ST- F 1	Wildfire Mitigation		County, Umatilla Chemical Depot							
LT-WS 3	Assess Snow Removal Capabilities	UCEM	Cities, Response Agencies, Special Districts	5 Years	X		X	X		X
ST-Earthquake 1	Survey Vulnerable Structures	UCEM	OEM, FEMA, Cities, Special Districts	1 Year Ongoing	X		X	X		X
ST-Volcano 1	Volcano Response Protocols	UCEM	...includes Cities	1 Year Ongoing	X		X	X		X

Proposed Action Item: Flood - Long Term #1 [F-LT 1]	Alignment with Plan Goals:
Mitigation of substantially improved or substantially damaged properties (i.e., repair, rehabilitation, reconstruction, remodeling, and additions)	Goal #1 – Property Protection Goal #3 -Planned Prevention Goal # 5 - Natural Resource Protection
Rationale for Proposed Action Item:	
<p>The National Flood Insurance Program (NFIP) enables property owners to purchase flood insurance for homes and business properties. FEMA administers the NFIP, and communities that have joined the program have entered into an agreement with the federal government to manage and enforce minimum floodplain development standards in local floodplains. The implementation of the substantial improvement/substantial damage requirements of the NFIP can be a major concern for local NFIP administrators and elected officials. This is because compliance with these NFIP standards can require a major investment by the building owner and thus can be strongly opposed by the owner. Local NFIP administrators and local officials may find it particularly challenging to implement these NFIP standards in a post-disaster environment when building owners have experienced serious damages as a result of a flood or other disaster and are likely financially strapped and emotionally impacted. [Note that the City of Umatilla has no repetitive loss properties.]</p>	
Ideas for Implementation:	
<p>Implementation Regulations:</p> <p>The basic NFIP rule is: that if the cost of improvements or cost of repairs exceeds 50% of the market value of the structure, then the structure must be brought up to current floodplain development standards. If an improved property is substantially damaged by a flood event, the NFIP-participating community must ensure the structure is elevated to, minimally, one foot above the 100-year base flood elevation and the foundation properly flood-vented. Other mitigation options allow for the relocation of the improvement to higher ground, demolition or a federally-funded property acquisition where the acquired property is returned to open space in perpetuity. If the improved property is not mitigated, the community will jeopardize its standing in the NFIP and ultimately the non-mitigated property may be designated as no longer be eligible for NFIP flood insurance. Most importantly, the unmitigated property remains fully subject to future flood damages.</p> <p>Ideas for Post-Disaster Implementation of Substantial Damage:</p> <p>The City of Umatilla, through its City Council Planning Committee and city staff, is responsible for determining substantial damages as a result of a flood or other disaster. It is important for a local official to conduct field reconnaissance as soon as possible after the disaster and to talk with impacted property owners to gauge the level of damages. For the purpose of determining the market value of the structure (values for land, landscaping, and accessory structures not considered), the local official will find the tax assessed Real Market Value reasonably reflects the property’s value. (Other methods can be used to estimate market values, but the community must consistently apply its methodology to all properties.) If the estimates to repair the disaster damage exceed 50 percent of the value of</p>	

the structure, the structure is substantially damaged. It is important to move quickly in making this determination as mitigation opportunities are often the best soon after the disaster occurs. Additional information on NFIP property damage claims can be obtained from the state NFIP coordinator. A detailed explanation of the substantial damage determination can be found in FEMA Publication 213, May 1991, *Answers to Questions About Substantially Damaged Buildings.*

Implementation strategy:

1. Within two weeks of a damaging flood event:
 - a. Identify, inspect, and photograph flood damaged properties, particularly those that have the potential to be substantially damaged.
 - b. Request NFIP flood loss claims from the state or FEMA Region 10.
 - c. Widely announce and promote mitigation opportunities and requirements for mitigation to substantially damaged properties.
 - d. Talk with impacted property owners if at all possible
 - e. Review incoming requests for building permits to track substantial improvements.
 - f. Promote coordination/cooperation between the local planner, building official, and emergency manager with respect to this work
2. Those properties that carry NFIP flood insurance could be eligible for the Increased Cost of Compliance (ICC) coverage (up to \$30,000) to help defray the cost of mitigation. This coverage is only available when the community has determined there is substantial damage and requires compliance with current flood development standards.
3. Contact Oregon Emergency Management to determine if federal grant funding might be available to mitigate substantially damage properties. Programs include the post-disaster Hazard Mitigation Grant Program, the Pre-Disaster Mitigation Grant Program and Flood Mitigation Assistance program. ICC funding can e use in conjunction with these mitigation grants. Mitigation treatments include elevation, relocation, demolition or property acquisition.

Coordinating Organization:		
Internal Partners:		External Partners:
		County, OEM, FEMA, USACE
Timeline:		If available, estimated cost:
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)	
	On-going	

Proposed Action Item: Short-Term Fire #1		Alignment with Plan Goals:
Work with agriculture and conservation groups to establish fire buffers between developed and resource lands		Goal #1 – Property Protection Goal # 2 – Planned Prevention Goal # 3 – Agency/Citizen Coordination Goal # 5 – Natural Resource Protection
Rationale for Proposed Action Item:		
<ul style="list-style-type: none"> • The <i>Umatilla County Community Wildfire Protection Plan</i> [2005] lays out action items to deal with pre-fire disaster mitigation planning. • As noted in the hazard assessment, the City of Umatilla is included in a list in the Federal <i>Register</i> of communities in the vicinity of Federal lands that is at risk from wildfire. 		
Ideas for Implementation:		
<ul style="list-style-type: none"> • Map existing range/urban interface areas around Umatilla where buffering could be a mitigation tool. • Obtain funding to hire contractors to design and complete fire buffers. • Work with affected property owners to install buffers. • Work with federal agencies assigned to conservation programs to insure the landowners remain compensated even when agreeing to install fire buffers. 		
Coordinating Organization:	Umatilla Fire District and Umatilla County Emergency Management	
Internal Partners:		External Partners:
City Public Works		Umatilla Chemical Depot, SWCD, NCRS, property owners
Timeline:		If available, estimated cost:
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)	
<u>X</u>		

Proposed Action Item: Flood – Short Term #1		Alignment with Plan Goals:
Develop plan and take action to mitigate flooding problems at the Umatilla High School Sports Field/Track.		Goal #1 – Property Protection Goal # 2 – Planned Prevention
Rationale for Proposed Action Item:		
During periods of intense rain/rapid snow melt, such as during the February 1996 statewide flooding event, the Umatilla High School track is damaged by standing water and erosion. The damage caused by the 1996 flood event was included in the county-wide damage assessment.		
Ideas for Implementation:		
Improve the temporary berm installed during the 1996 flood. Provide more effect drainage for the area.		
Coordinating Organization:	Umatilla School District	
Internal Partners:	External Partners:	
City Public Works	Umatilla School District	
Timeline:	If available, estimated cost:	
<u>Short Term</u> (0-2 years)	<u>Long Term</u> (2-4 or more years)	
<u>X</u>		

City of Umatilla NHMP Action Items										
Action Item Number	Action Item	Coord. Org.	Partner Organizations	Timeline	Plan Goal Addressed					
					Property Protection	Outreach	Public Prevention	Planned	Agency Coordination	Nat. Resource Protection
ST-Wildfire-1	Develop wildfire buffers	UCEM	County, OEM, NRCS, SWCD	1-2 years	X	X	X	X	X	
LT-Flood-1	Mitigation of substantially damaged properties	Umatilla City Council	County, OEM, FEMA, USACE	On-going	X		X		X	
ST-Flood - 1	Resolve flooding/erosion problems at High School Track	Umatilla School District	City Public Works	1-2 years	X		X			

Mitigation Plan Adoption

- The Umatilla City Council adopted this Plan on June 5, 2007, “subject to final review by the City of the Plan as approved by FEMA and adopted by Umatilla County...” *Resolution 22-2007*
A copy of the entire Resolution is located in Appendix A.
- On June 2, 2009 the Umatilla City Council reviewed proposed revisions and updates.
- On July 2, 2009, the Council concurred with the changes and authorized staff to forward the NHMP to FEMA for review.

Mitigation Plan Appendices

Appendix A – Initial Resolution of Adoption by the City Council

Appendix B – Seismic Assessments, Maps and Aerial Photos of the City of Umatilla

Appendix C - Umatilla County Natural Hazards Action Plan Matrix

Appendix D – Region 5 Mid-Columbia Natural Hazards Mitigation Profile

Appendix E- Economic Analysis of Natural Hazards Mitigation Projects

Appendix F – Mid-Columbia Region Hazards Assessment

Appendix G – List of Acronyms

Appendix A

RESOLUTION NO. 22-2007

A RESOLUTION ADOPTING THE UMATILLA COUNTY NATURAL HAZARDS MITIGATION PLAN

WHEREAS, Umatilla County recognizes the threat that natural hazards pose to people and property within our community; and

WHEREAS, undertaking hazard mitigation actions will reduce the potential for harm to people and property from future hazard occurrences; and

WHEREAS, an adopted Natural Hazards Mitigation Plan is required as a condition of future funding for mitigation projects under multiple FEMA pre- and post-disaster mitigation grant programs; and

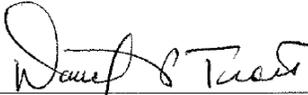
WHEREAS, the City of Umatilla fully participated in the FEMA-prescribed mitigation planning process to prepare this Natural Hazards Mitigation Plan; and

WHEREAS, the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X officials are currently reviewing the "Umatilla County, Oregon Natural Hazards Mitigation Plan" (dated 12/28/06) and upon its acceptance will pre-approve it contingent upon official adoption by the participating governments and entities.

NOW, THEREFORE, BE IT RESOLVED, that the City of Umatilla adopts the "Umatilla County, Oregon Natural Hazards Mitigation Plan" as an official plan subject to final review by the City of the Plan as approved by FEMA and adopted by Umatilla County; and

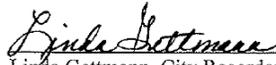
BE IT FURTHER RESOLVED, the City of Umatilla will submit this Adoption Resolution to the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X officials to enable the Plan's final approval.

APPROVED by the Council this 5th day of June, 2007.



DAVID P. TROTT, MAYOR

ATTEST:



Linda Gettmann, City Recorder

Appendix B

East Umatilla County RFPD

Umat_fir07A

East Umatilla County RFPD

Building Type	County	
Fire - RFPD	Umatilla	
Street		
77167 Spring Hollow Rd		
City	State	Zip
Adams	OR	97810
Latitude	Longitude	
45.76881	118.55766	
Tracking Code	Inspection Date	
New Building	8/2/2006	



Seismicity Zone: Moderate

FEMA 154 Rapid Visual Screening Score Card

	Type	Basic Score	Vert Irreg	Plan Irreg	Pre-Code	Post-Bench	Soil C	Soil D	Soil E	RVS Score
Primary	S3	3.8	0	0	0	0	-0.6	0	0	3.2
Secondary		0	0	0	0	0	0	0	0	0
Tertiary		0	0	0	0	0	0	0	0	0

East Umatilla County RFPD

Final RVS Score

Final Type	Final Score
S3	3.2

FEMA-154 Collapse Potential

Low (<1%)



Rapid Visual Screening - Senate Bill #2 - Seismic Needs Assessment
Oregon Department of Geology and Mineral Industries

Umatilla RFPD

Umat_fir09A

Umatilla RFPD

Building Type	County	
Fire - RFPD	Umatilla	
Street		
921 6th St		
City	State	Zip
Umatilla	OR	97882
Latitude		Longitude
45.91791		119.34201
Tracking Code		Inspection Date
RVS in 2006		8/15/2006



Seismicity Zone: Moderate

FEMA 154 Rapid Visual Screening Score Card										
	Type	Basic Score	Vert Irreg	Plan Irreg	Pre-Code	Post-Bench	Soil C	Soil D	Soil E	RVS Score
Primary	RM1	3.6	0	-0.5	0	0	-0.8	0	0	2.3
Secondary		0	0	0	0	0	0	0	0	0
Tertiary		0	0	0	0	0	0	0	0	0

Umatilla RFPD

Final RVS Score

Final Type	Final Score
RM1	2.3

FEMA-154 Collapse Potential

Low (<1%)



Rapid Visual Screening - Senate Bill #2 - Seismic Needs Assessment
Oregon Department of Geology and Mineral Industries

Umatilla RFPD

Umat_fir09A

Enrollment	Year Built (Field Verified)	Year Built (Alt. Source)	Est. Decade Built
		1980	1960
Total Area (square ft)	Number of Stories	Basement	Pounding Potential
3782	1	No	No
Plan Irregularities		Vertical Irregularities	
Torsion: Eccentric Stiffness		None	
Reentrant Corners: L Shaped		None	
None		None	
Falling Hazards		Poor Conditions	
None		None	
None		None	
None		None	
 <p>W Elevation View</p>			



Umatilla Police Dept

Umat_pol02A

City of Umatilla

Building Type	County	
Police-City	Umatilla	
Street		
300 6th St		
City	State	Zip
Umatilla	OR	97880
Latitude		Longitude
45.91622		119.34835
Tracking Code		Inspection Date
RVS in 2006		8/15/2006



Seismicity Zone: Moderate

FEMA 154 Rapid Visual Screening Score Card

	Type	Basic Score	Vert Irreg	Plan Irreg	Pre-Code	Post-Bench	Soil C	Soil D	Soil E	RVS Score
Primary	W2	4.8	0	0	0	0	-0.8	0	0	4
Secondary		0	0	0	0	0	0	0	0	0
Tertiary		0	0	0	0	0	0	0	0	0

Umatilla Police Dept

Final RVS Score

Final Type Final Score

W2

4

FEMA-154 Collapse Potential

Low (<1%)



Rapid Visual Screening - Senate Bill #2 - Seismic Needs Assessment
Oregon Department of Geology and Mineral Industries

Umatilla Police Dept

Umat_pol02A

Enrollment	Year Built (Field Verified)	Year Built (Alt. Source)	Est. Decade Built
			1970
Total Area (square ft)	Number of Stories	Basement	Pounding Potential
	1	No	No
Plan Irregularities		Vertical Irregularities	
None		None	
None		None	
None		None	
Falling Hazards		Poor Conditions	
None		None	
None		None	
None		None	



S Elevation View

McNary Heights Elementary School

Umat_sch01A

Umatilla SD 6R

Building Type School	County Umatilla		
Street 120 Columbia Ave			
City Umatilla	State OR		Zip 97882
Latitude 45.91945	Longitude 119.2952		
Tracking Code RVS in 2006	Inspection Date 8/15/2006		

Seismicity Zone: Moderate											McNary Heights Elementary School	
FEMA 154 Rapid Visual Screening Score Card												
	Type	Basic Score	Vert Irreg	Plan Irreg	Pre-Code	Post-Bench	Soil C	Soil D	Soil E	RVS Score	Final Type	Final Score
Primary	RM1	3.6	-2	-0.5	0	0	0	-1.2	0	-0.1	RM1	-0.1
Secondary		0	0	0	0	0	0	0	0	0		
Tertiary		0	0	0	0	0	0	0	0	0		
FEMA-154 Collapse Potential											Very High (100%)	

**No
Planview
Available**



Rapid Visual Screening - Senate Bill #2 - Seismic Needs Assessment
Oregon Department of Geology and Mineral Industries

McNary Heights Elementary School

Umat_sch01A

Enrollment	Year Built (Field Verified)	Year Built (Alt. Source)	Est. Decade Built
606		1975	1970
Total Area (square ft)	Number of Stories	Basement	Pounding Potential
44779	1	No	No

Plan Irregularities	Vertical Irregularities
Reentrant Corners: Other	Steps in Elevation View: Single Change
None	None
None	None

Falling Hazards	Poor Conditions
None	None
None	None
None	None



NW Elevation View



NW Elevation View



E Elevation View



SE Elevation View

Clara Brownell Middle School

Umat_sch27A

Umatilla SD 6R

Building Type School	County Umatilla	
Street 1460 7th St		
City Umatilla	State Zip OR 97882	
Latitude 45.91716	Longitude 119.338	
Tracking Code RVS in 2006	Inspection Date 8/15/2006	

Seismicity Zone: Moderate

FEMA 154 Rapid Visual Screening Score Card

	Type	Basic Score	Vert Irreg	Plan Irreg	Pre-Code	Post-Bench	Soil C	Soil D	Soil E	RVS Score
Primary	C2	3.6	-2	-0.5	0	0	-0.8	0	0	0.3
Secondary		0	0	0	0	0	0	0	0	0
Tertiary		0	0	0	0	0	0	0	0	0

Clara Brownell Middle School

Final RVS Score

Final Type Final Score

C2

0.3

FEMA-154 Collapse Potential

High (>10%)



Rapid Visual Screening - Senate Bill #2 - Seismic Needs Assessment
Oregon Department of Geology and Mineral Industries

Clara Brownell Middle School

Umat_sch27A

Enrollment 298	Year Built (Field Verified)	Year Built (Alt. Source) 1915	Est. Decade Built 1950
Total Area (square ft) 90515	Number of Stories 1	Basement No	Pounding Potential No
Plan Irregularities		Vertical Irregularities	
Reentrant Corners: Other		Steps in Elevation View: 2 to 3 Changes	
Reentrant Corners: Other		Steps in Elevation View: 2 to 3 Changes (Adjacent Building/Entity)	
None		None	
Falling Hazards		Poor Conditions	
Unreinforced Chimneys		None	
None		None	
None		None	



N Falling Hazard



NE Elevation View



SE Elevation View

Clara Brownell Middle School

Umat_sch27B

Umatilla SD 6R

Building Type	County	
School	Umatilla	
Street		
1460 7th St		
City	State	Zip
Umatilla	OR	97882
Latitude		Longitude
45.91657		119.33819
Tracking Code		Inspection Date
RVS in 2006		8/15/2006



Seismicity Zone: Moderate

FEMA 154 Rapid Visual Screening Score Card										
	Type	Basic Score	Vert Irreg	Plan Irreg	Pre-Code	Post-Bench	Soil C	Soil D	Soil E	RVS Score
Primary	C2	3.6	-2	-0.5	0	0	-0.8	0	0	0.3
Secondary		0	0	0	0	0	0	0	0	0
Tertiary		0	0	0	0	0	0	0	0	0

Clara Brownell Middle School

Final RVS Score

Final Type	Final Score
C2	0.3

FEMA-154 Collapse Potential

High (>10%)



Rapid Visual Screening - Senate Bill #2 - Seismic Needs Assessment
Oregon Department of Geology and Mineral Industries

Clara Brownell Middle School

Umat_sch27B

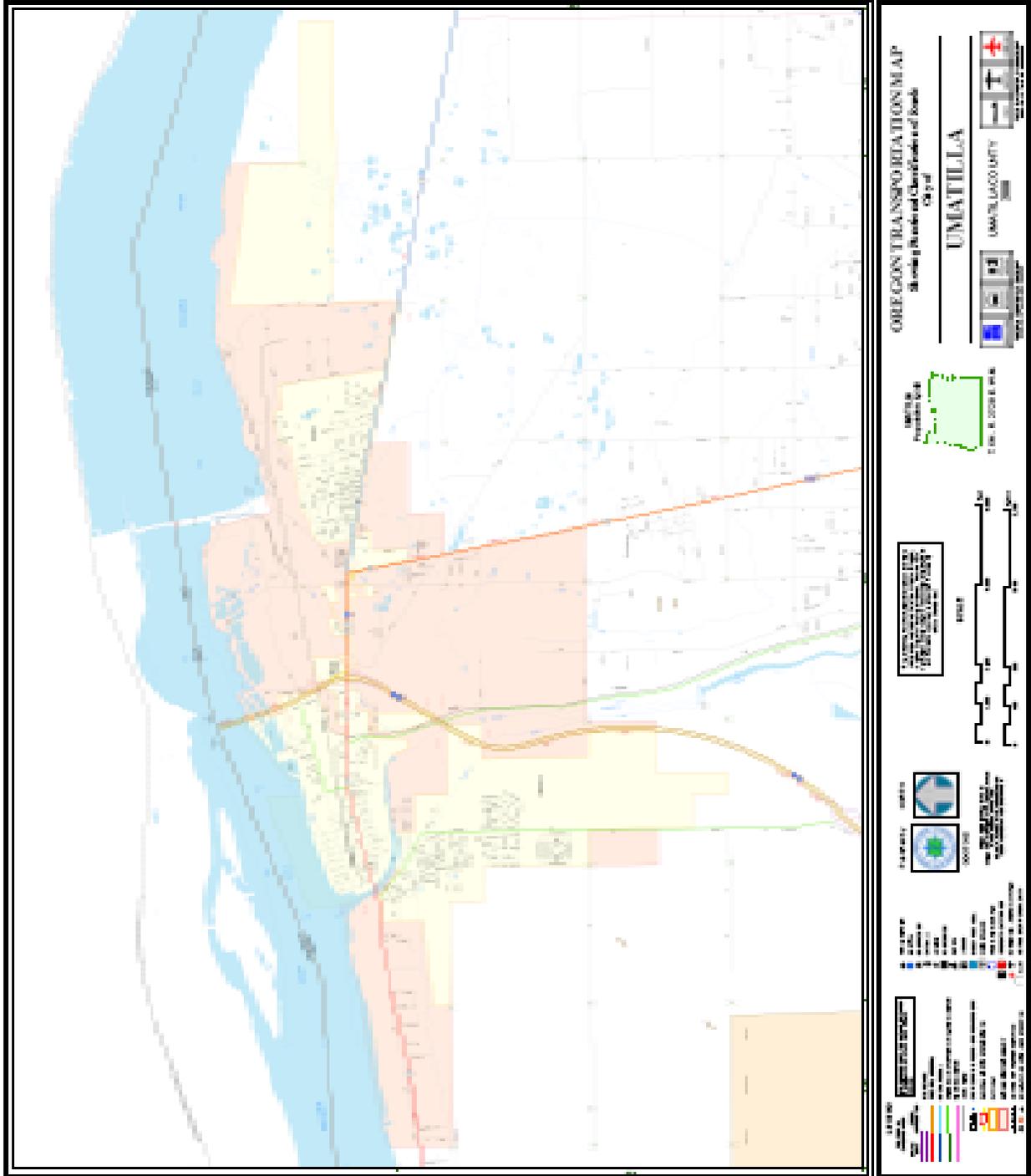
Enrollment 298	Year Built (Field Verified)	Year Built (Alt. Source) 1915	Est. Decade Built 1950
Total Area (square ft)	Number of Stories 1	Basement No	Pounding Potential No
Plan Irregularities		Vertical Irregularities	
Reentrant Corners: Other (Adjacent Build/Entity)		Steps in Elevation View: Single Change (Adjacent Building/Entity)	
Reentrant Corners: Other		None	
None		None	
Falling Hazards		Poor Conditions	
None		None	
None		None	
None		None	



SW Elevation View







Umatilla County

■ Within the 100-yr and 500-yr flood zone

