

MORROW COUNTY OREGON

Multi-jurisdictional Natural Hazard Mitigation Plan

Report for:

Morrow County
City of Boardman
City of Heppner
City of Lone
City of Irrigon
Town of Lexington

Prepared by:

Morrow County, Oregon

Oregon Partnership for Disaster Resilience

Resource Assistance to Rural Environments

Date: December 2016



FEMA

March 1, 2017

Honorable Melissa Lindsay
Chair, Morrow County Commissioners
P.O. Box 788
100 S. Court Street
Heppner, Oregon 97836

Dear Chair Lindsay:

On February 28, 2017, the U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA), Region 10, approved the *Morrow County Multi-Jurisdictional Natural Hazard Mitigation Plan* as a multi-jurisdictional local plan as outlined in Code of Federal Regulations Title 44 Part 201. This approval provides the below jurisdictions eligibility to apply for the Robert T. Stafford Disaster Relief and Emergency Assistance Act's, Hazard Mitigation Assistance (HMA) grants projects through February 27, 2022, through your state:

Morrow County	City of Boardman	City of Hepper
City of Ione	City of Irrigon	Town of Lexington

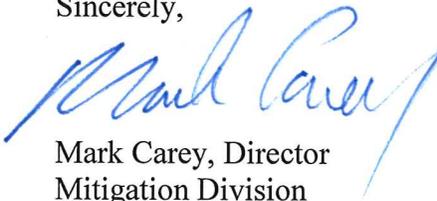
FEMA individually evaluates all application requests for funding according to the specific eligibility requirements of the applicable program. Though a specific mitigation activity or project identified in the plan may meet the eligibility requirements, it may not automatically receive approval for FEMA funding under any of the aforementioned programs.

Approved mitigation plans may be eligible for points under the National Flood Insurance Program's Community Rating System (CRS). For additional information regarding the CRS, please visit: www.fema.gov/national-flood-insurance-program-community-rating-system or contact your local floodplain manager.

Over the next five years, we encourage your communities to follow the plan's schedule for monitoring and updating, and to develop further mitigation actions. To continue eligibility, jurisdictions must review, revise as appropriate, and resubmit the plan within five years of the original approval date.

If you have questions regarding your plan's approval or FEMA's mitigation grant programs, please contact Joseph Murray, Planner with Oregon Office of Emergency Management, at (503) 378-2911, who coordinates and administers these efforts for local entities.

Sincerely,



Mark Carey, Director
Mitigation Division

Enclosure

cc: Angie Lane, Oregon Office of Emergency Management

BH:vl

**IN THE COUNTY COURT FOR THE STATE OF OREGON
FOR THE COUNTY MORROW**

A Resolution Adopting the Morrow) RESOLUTION NO. R-2016-23
County Natural Hazard Mitigation Plan)

WHEREAS, Morrow 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 Morrow County Court appointed a Steering Committee to guide the update of the Plan, which was originally adopted by the County in 2006, which consisted of 12 people representing various agencies and organizations in Morrow County to include the local fire protection districts, the Morrow County Emergency Manager, Morrow County Public Works, Local Emergency Planning Committee, the five communities of Morrow County, and Morrow Soil and Water Conservation District, all having a stake in natural hazard mitigation; and

WHEREAS, the Steering Committee met the following five times:

- February 23, 2012
- November 19, 2013
- March 4, 2014
- October 20, 2015
- April 5, 2016 (NHMP Cities Meeting)

WHEREAS, Morrow County participated in the FEMA review process to update this Natural Hazard Mitigation Plan; and

WHEREAS, after the first FEMA review process Morrow County made changes as required to the draft plan; and

WHEREAS, after the second FEMA review process, FEMA approved the draft plan, and the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X officials have reviewed the “Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan” and pre-approved this update contingent upon this official Adoption by Resolution of the participating governments and entities;

NOW THEREFORE BE IT RESOLVED THAT THE MORROW COUNTY COURT ADOPTS BY RESOLUTION THE “MORROW COUNTY OREGON MULTIJURISDICTIONAL NATURAL HAZARD MITIGATION PLAN” AS AN OFFICIAL PLAN; and

BE IT FURTHER RESOLVED, MORROW COUNTY WILL SUBMIT THE ADOPTION RESOLUTIONS TO THE OREGON OFFICE OF EMERGENCY MANAGEMENT AND FEDERAL EMERGENCY MANAGEMENT AGENCY, REGION X OFFICIALS TO ENABLE THE PLAN’S FINAL APPROVAL.

Section 1 Title of Resolution:

This resolution shall be known, and may be cited as “The 2016 Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan.”

Section 2 Attached Document:

The Morrow County Natural Hazard Mitigation Plan, which includes five Chapter Sections of the Plan, eight Natural Hazard Annexes, five City Annexes, and Appendices “A” through “G” arranged as follows and attached:

Chapters of The Plan:

- Section 1 - Introduction
- Section 2 - Community Profile
- Section 3 - Natural Hazard Risks
- Section 4 - Mission, Goals and Action Items
- Section 5 - Plan Implementation and Maintenance

Hazard Specific Annexes:

- Drought
- Earthquake
- Flood
- Landslide
- Volcano
- Wildfire
- Windstorm
- Winter Storm

City Annexes:

- Boardman
- Heppner
- Ione
- Irrigon
- Lexington

Resources Appendices:

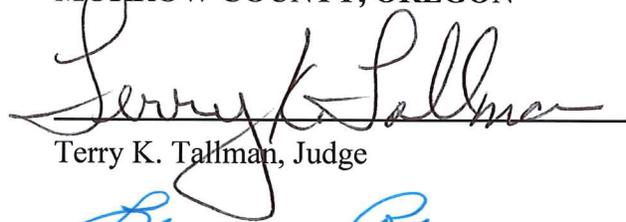
- A - Resource Directory
- B - Planning and Public Process
- C - Regional Natural Hazard Public Opinion Survey
- D - Existing Plans, Policies, and Programs
- E - List of Acronyms
- F - Action Items
- G - Maps

Section 3 Effective Date:

To respect the work done by the Steering Committee, the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X, the Morrow County Court deems there to be an emergency. This Resolution and its attached document, the Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan, is to be effective on January 1, 2017, which is after adoption by Morrow County and all five communities.

ADOPTED BY THE MORROW COUNTY COURT THIS 21st DAY OF DECEMBER, 2016.

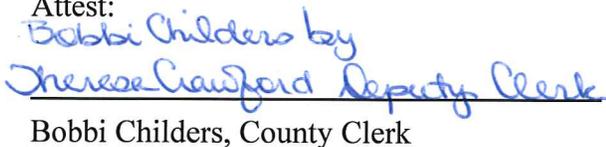
**COUNTY COURT OF
MORROW COUNTY, OREGON**


Terry K. Tallman, Judge

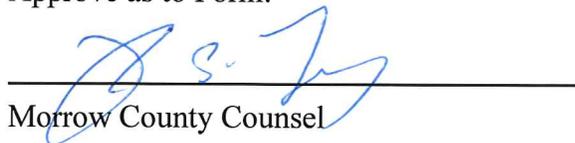

Leann Rea, Commissioner


Don Russell, Commissioner

Attest:


Bobbi Childers, County Clerk

Approve as to Form:


Morrow County Counsel



**CITY OF BOARDMAN
RESOLUTION NO. 23-2016**

**A RESOLUTION ADOPTING THE MORROW COUNTY NATURAL
HAZARD MITIGATION PLAN**

WHEREAS, The City of Boardman 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 Morrow County Court appointed a Steering Committee to guide the update of the Plan, which was originally adopted by the County in 2006, which consisted of 12 people representing various agencies and organizations in Morrow County to include the local fire protection districts, the Morrow County Emergency Manager, Morrow County Public Works, Local Emergency Planning Committee, the five communities of Morrow County, and Morrow Soil and Water Conservation District, all having a stake in natural hazard mitigation; and

WHEREAS, the Steering Committee met the following five times:

- February 23, 2012
- November 19, 2013
- March 4, 2014
- October 20, 2015
- April 5, 2016 (NHMP Cities Meeting)

WHEREAS, The City of Boardman participated in the FEMA review process to update this Natural Hazard Mitigation Plan; and

WHEREAS, The City of Boardman held a public meeting on February 4, 2014, to consider the Natural Hazard Mitigation Plan and the Boardman City Annex; and

WHEREAS, after the first FEMA review process Morrow County made changes as required to the draft plan; and

WHEREAS, after the second FEMA review process, FEMA approved the draft plan, and the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X officials have reviewed the "Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan" and pre-approved this update contingent upon this official Adoption by Resolution of the participating governments and entities;

NOW THEREFORE BE IT RESOLVED that the city of Boardman adopts by resolution the "Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan" as an official plan; and

BE IT FURTHER RESOLVED, Morrow County will submit the adoption resolutions to the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X officials to enable the plan's final approval.

Section 1 Title of Resolution:

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Section 2 Attached Document:

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- Section 4 - Mission, Goals and Action Items
- Section 5 - Plan Implementation and Maintenance

Hazard Specific Annexes:

- Drought
- Earthquake
- Flood
- Landslide
- Volcano
- Wildfire
- Windstorm
- Winter Storm

City Annexes:

- Boardman
- Heppner
- Ione
- Irrigon
- Lexington

Resources Appendices:

- A - Resource Directory
- B - Planning and Public Process
- C - Regional Natural Hazard Public Opinion Survey
- D - Existing Plans, Policies, and Programs
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- F - Action Items
- G - Maps

Section 3 Effective Date:

To respect the work done by the Steering Committee, the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X, The City of Boardman Court deems there to be an emergency. This Resolution and its attached document, the Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan, is to be effective on January 1, 2017, which is after adoption by Morrow County and all five communities

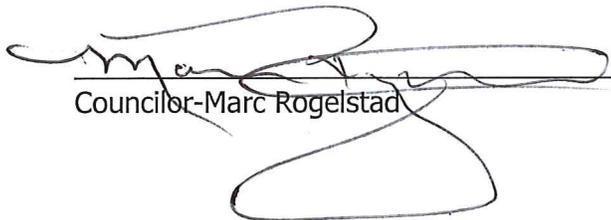
ADOPTED by the Boardman City Council, Boardman, Oregon, on this 6th day of December, 2016.



Mayor –Sandy Toms

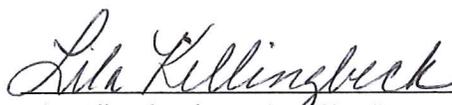


Councillor-Art Kegler



Councillor-Marc Rogelstad

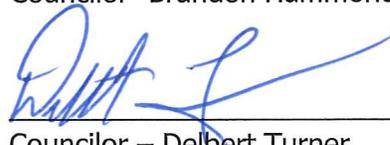
ATTEST:



Lila Killingbeck, Acting City Recorder



Councillor- Brandon Hammond



Councillor – Delbert Turner



Councillor – David Jones



Councillor – Brenda Profitt

CITY OF HEPPNER

A Resolution Adopting the Morrow)
County Natural Hazard Mitigation Plan) **RESOLUTION NO. 905-16**

WHEREAS, The City of Heppner 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 Morrow County Court appointed a Steering Committee to guide the update of the Plan, which was originally adopted by the County in 2006, which consisted of 12 people representing various agencies and organizations in Morrow County to include the local fire protection districts, the Morrow County Emergency Manager, Morrow County Public Works, Local Emergency Planning Committee, the five communities of Morrow County, and Morrow Soil and Water Conservation District, all having a stake in natural hazard mitigation; and

WHEREAS, the Steering Committee met the following five times:

- February 23, 2012
- November 19, 2013
- March 4, 2014
- October 20, 2015
- April 5, 2016 (NHMP Cities Meeting)

WHEREAS, The City of Heppner participated in the FEMA review process to update this Natural Hazard Mitigation Plan; and

WHEREAS, The City of Heppner held a public meeting on January 24, 2014, to consider the Natural Hazard Mitigation Plan and the Heppner City Annex; and

WHEREAS, after the first FEMA review process Morrow County made changes as required to the draft plan; and

WHEREAS, after the second FEMA review process, FEMA approved the draft plan, and the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X officials have reviewed the "Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan" and pre-approved this update contingent upon this official Adoption by Resolution of the participating governments and entities;

NOW THEREFORE BE IT RESOLVED THAT THE CITY OF HEPPNER ADOPTS BY RESOLUTION THE “MORROW COUNTY OREGON MULTI-JURISDICTIONAL NATURAL HAZARD MITIGATION PLAN” AS AN OFFICIAL PLAN; and

BE IT FURTHER RESOLVED, MORROW COUNTY WILL SUBMIT THE ADOPTION RESOLUTIONS TO THE OREGON OFFICE OF EMERGENCY MANAGEMENT AND FEDERAL EMERGENCY MANAGEMENT AGENCY, REGION X OFFICIALS TO ENABLE THE PLAN’S FINAL APPROVAL.

Section 1 Title of Resolution:

This resolution shall be known, and may be cited as “The 2016 Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan.”

Section 2 Attached Document:

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- Section 2 - Community Profile
- Section 3 - Natural Hazard Risks
- Section 4 - Mission, Goals and Action Items
- Section 5 - Plan Implementation and Maintenance

Hazard Specific Annexes:

- Drought
- Earthquake
- Flood
- Landslide
- Volcano
- Wildfire
- Windstorm
- Winter Storm

City Annexes:

- Boardman
- Heppner
- Ione
- Irrigon
- Lexington

Resources Appendices:

- A - Resource Directory
- B - Planning and Public Process
- C - Regional Natural Hazard Public Opinion Survey
- D - Existing Plans, Policies, and Programs
- E - List of Acronyms
- F - Action Items
- G - Maps

Section 3 Effective Date:

To respect the work done by the Steering Committee, the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X, The City of Heppner deems there to be an emergency. This Resolution and its attached document, the Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan, is to be effective on January 1, 2017, which is after adoption by Morrow County and all five communities.

ADOPTED BY THE CITY OF HEPPNER CITY COUNCIL ON DECEMBER 12, 2016.



R.H. Matthews, Mayor

ATTEST



A. Kim Cutsforth, City Manager

CITY OF IONE

A Resolution Adopting the Morrow) RESOLUTION NO. 4-2016
County Natural Hazard Mitigation Plan)

WHEREAS, The City of Ione 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 Morrow County Court appointed a Steering Committee to guide the update of the Plan, which was originally adopted by the County in 2006, which consisted of 12 people representing various agencies and organizations in Morrow County to include the local fire protection districts, the Morrow County Emergency Manager, Morrow County Public Works, Local Emergency Planning Committee, the five communities of Morrow County, and Morrow Soil and Water Conservation District, all having a stake in natural hazard mitigation; and

WHEREAS, the Steering Committee met the following five times:

- February 23, 2012
- November 19, 2013
- March 4, 2014
- October 20, 2015
- April 5, 2016 (NHMP Cities Meeting)

WHEREAS, The City of Ione participated in the FEMA review process to update this Natural Hazard Mitigation Plan; and

WHEREAS, The City of Ione held a public meeting on January 14, 2014, to consider the Natural Hazard Mitigation Plan and the Ione City Annex; and

WHEREAS, after the first FEMA review process Morrow County made changes as required to the draft plan; and

WHEREAS, after the second FEMA review process, FEMA approved the draft plan, and the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X officials have reviewed the “Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan” and pre-approved this update contingent upon this official Adoption by Resolution of the participating governments and entities;

NOW THEREFORE BE IT RESOLVED THAT THE CITY OF IONE ADOPTS BY RESOLUTION THE “MORROW COUNTY OREGON MULTI-JURISDICTIONAL NATURAL HAZARD MITIGATION PLAN” AS AN OFFICIAL PLAN; and

BE IT FURTHER RESOLVED, MORROW COUNTY WILL SUBMIT THE ADOPTION RESOLUTIONS TO THE OREGON OFFICE OF EMERGENCY MANAGEMENT AND FEDERAL EMERGENCY MANAGEMENT AGENCY, REGION X OFFICIALS TO ENABLE THE PLAN’S FINAL APPROVAL.

Section 1 Title of Resolution:

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Section 2 Attached Document:

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- Section 4 - Mission, Goals and Action Items
- Section 5 - Plan Implementation and Maintenance

Hazard Specific Annexes:

- Drought
- Earthquake
- Flood
- Landslide
- Volcano
- Wildfire
- Windstorm
- Winter Storm

City Annexes:

- Boardman
- Heppner
- Ione
- Irrigon
- Lexington

Resources Appendices:

- A - Resource Directory
- B - Planning and Public Process
- C - Regional Natural Hazard Public Opinion Survey
- D - Existing Plans, Policies, and Programs
- E - List of Acronyms
- F - Action Items
- G - Maps

Section 3 Effective Date:

To respect the work done by the Steering Committee, the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X, The City of Ione deems there to be an emergency. This Resolution and its attached document, the Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan, is to be effective on January 1, 2017, which is after adoption by Morrow County and all five communities.

ADOPTED BY THE CITY OF IONE CITY COUNCIL THIS 13th DAY OF DECEMBER, 2016.

By: 
Linda LaRue, Mayor

Attested By: 
Kim Carter, City Recorder

RESOLUTION NO. 16-31

ADOPTING THE MORROW COUNTY NATURAL HAZARD MITIGATION PLAN

WHEREAS, The City of Irrigon 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 Morrow County Court appointed a Steering Committee to guide the update of the Plan, which was originally adopted by the County in 2006, which consisted of 12 people representing various agencies and organizations in Morrow County to include the local fire protection districts, the Morrow County Emergency Manager, Morrow County Public Works, Local Emergency Planning Committee, the five communities of Morrow County, and Morrow Soil and Water Conservation District, all having a stake in natural hazard mitigation; and

WHEREAS, the Steering Committee met the following five times:

- February 23, 2012
- November 19, 2013
- March 4, 2014
- October 20, 2015
- April 5, 2016 (NHMP Cities Meeting)

WHEREAS, The City of Irrigon participated in the FEMA review process to update this Natural Hazard Mitigation Plan; and

WHEREAS, The City of Irrigon held a public meeting on February 18, 2014, to consider the Natural Hazard Mitigation Plan and the Irrigon City Annex; and

WHEREAS, after the first FEMA review process Morrow County made changes as required to the draft plan; and

WHEREAS, after the second FEMA review process, FEMA approved the draft plan, and the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X officials have reviewed the "Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan" and pre-approved this update contingent upon this official Adoption by Resolution of the participating governments and entities;

NOW THEREFORE BE IT RESOLVED THAT THE CITY OF IRRIGON ADOPTS BY RESOLUTION THE "MORROW COUNTY OREGON MULTI-JURISDICTIONAL NATURAL HAZARD MITIGATION PLAN" AS AN OFFICIAL PLAN; and

BE IT FURTHER RESOLVED, MORROW COUNTY WILL SUBMIT THE ADOPTION RESOLUTIONS TO THE OREGON OFFICE OF EMERGENCY MANAGEMENT AND FEDERAL EMERGENCY MANAGEMENT AGENCY, REGION X OFFICIALS TO ENABLE THE PLAN'S FINAL APPROVAL.

Section 1 Title of Resolution:

This resolution shall be known, and may be cited as "The 2016 Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan."

Section 2 Attached Document:

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Hazard Specific Annexes:

- Drought
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- Flood
- Landslide
- Volcano
- Wildfire
- Windstorm
- Winter Storm

City Annexes:

- Boardman
- Heppner
- Ione
- Irrigon
- Lexington

Resources Appendices:

- A - Resource Directory
- B - Planning and Public Process
- C - Regional Natural Hazard Public Opinion Survey
- D - Existing Plans, Policies, and Programs
- E - List of Acronyms
- F - Action Items
- G - Maps

Section 3 Effective Date:

To respect the work done by the Steering Committee, the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X, The City of Irrigon deems there to be an emergency. This Resolution and its attached document, the Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan is to be effective on January 1, 2017, which is after adoption by Morrow County and all five communities.

ADOPTED BY THE COMMON COUNCIL OF THE CITY OF IRRIGON THIS 20th DAY OF DECEMBER, 2016.

SIGNED:

Sam Heath
Sam Heath, Mayor

ATTEST:

Aaron Palmquist
Aaron Palmquist, City Manager

TOWN OF LEXINGTON

A Resolution Adopting the Morrow)
County Natural Hazard Mitigation Plan) RESOLUTION NO. 16-6

WHEREAS, The Town of Lexington 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 Morrow County Court appointed a Steering Committee to guide the update of the Plan, which was originally adopted by the County in 2006, which consisted of 12 people representing various agencies and organizations in Morrow County to include the local fire protection districts, the Morrow County Emergency Manager, Morrow County Public Works, Local Emergency Planning Committee, the five communities of Morrow County, and Morrow Soil and Water Conservation District, all having a stake in natural hazard mitigation; and

WHEREAS, the Steering Committee met the following five times:

- February 23, 2012
- November 19, 2013
- March 4, 2014
- October 20, 2015
- April 5, 2016 (NHMP Cities Meeting)

WHEREAS, The Town of Lexington participated in the FEMA review process to update this Natural Hazard Mitigation Plan; and

WHEREAS, The Town of Lexington held a public meeting on January 14, 2014, to consider the Natural Hazard Mitigation Plan and the Ione City Annex; and

WHEREAS, after the first FEMA review process Morrow County made changes as required to the draft plan; and

WHEREAS, after the second FEMA review process, FEMA approved the draft plan, and the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X officials have reviewed the "Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan" and pre-approved this update contingent upon this official Adoption by Resolution of the participating governments and entities;

NOW THEREFORE BE IT RESOLVED THAT THE TOWN OF LEXINGTON ADOPTS BY RESOLUTION THE “MORROW COUNTY OREGON MULTI-JURISDICTIONAL NATURAL HAZARD MITIGATION PLAN” AS AN OFFICIAL PLAN; and

BE IT FURTHER RESOLVED, MORROW COUNTY WILL SUBMIT THE ADOPTION RESOLUTIONS TO THE OREGON OFFICE OF EMERGENCY MANAGEMENT AND FEDERAL EMERGENCY MANAGEMENT AGENCY, REGION X OFFICIALS TO ENABLE THE PLAN’S FINAL APPROVAL.

Section 1 Title of Resolution:

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City Annexes:

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- Ione
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Resources Appendices:

- A - Resource Directory
- B - Planning and Public Process
- C - Regional Natural Hazard Public Opinion Survey
- D - Existing Plans, Policies, and Programs
- E - List of Acronyms
- F - Action Items
- G - Maps

Section 3 Effective Date:

To respect the work done by the Steering Committee, the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X, The Town of Lexington deems there to be an emergency. This Resolution and its attached document, the Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan, is to be effective on January 1, 2017, which is after adoption by Morrow County and all five communities.

ADOPTED BY THE TOWN OF LEXINGTON TOWN COUNCIL THIS 13th DAY OF DECEMBER, 2016.



Mayor Arletta Arnsperger



Councilor Bill Beard



Councilor Deona Siex



Councilor Sheila Miller



Janette Eldrige, Town Recorder

MORROW COUNTY

Natural Hazard Mitigation Plan

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Section 1

Introduction

"On Sunday, June 14, 1903, at about 5:00 p.m., a cloudburst broke over the hills south of the small farming community of Heppner. Overloaded creeks rushed toward the town, picking up debris from the farms through which they passed. At the south end of Heppner, a steam laundry crossed the path of the water. Debris built up behind the laundry, effectively damming the water until the building could not withstand the pressure. When the water broke free, it hit Heppner with a force unmatched in the history of the state.

"After the floodwaters subsided, the task of finding and burying the dead began. Bodies were dug out of the debris and, in some cases, brought back to town from several miles downstream. A temporary morgue was set up in the stone Roberts Building, one of the few structures left relatively unscathed on Main Street. Fatality counts varied; some people simply disappeared and were never accounted for, some bodies were never identified. The final count was 'approximately 250 dead.'" (Reprinted from the website: www.rootsweb.com/morrow/HeppnerFlood.htm)

Why Develop a Mitigation Plan?

Morrow County developed this Natural Hazards Mitigation Plan in an effort to reduce future loss of life and property resulting from natural disasters such as the flood event mentioned above. The Heppner Flood was the worst flood, in terms of loss of life, ever to occur in Oregon. It is impossible to predict exactly when these disasters will occur, or the extent to which they will affect the County. However, with careful planning and collaboration among public agencies, private sector organizations, and citizens within the community, it is possible to minimize the losses that can result from natural disasters. The original Natural Hazard Mitigation Plan was developed through a regional partnership funded by the Federal Emergency Management Agency's (FEMA) Pre-Disaster Mitigation Competitive Grant Program. The Mid-Columbia Region grant was awarded in the fall of 2005 to support the development of natural hazard mitigation plans for communities in the region. The County utilized a planning process, plan framework, and plan development support provided by the Oregon Natural Hazards Workgroup (ONHW) at the University of Oregon's Community Service Center.

A natural disaster occurs when a natural hazard impacts people or property and creates adverse conditions within a community. This plan focuses on the primary natural hazards that could affect Morrow County, Oregon, which include drought, wildfire, flooding, windstorms, winter storm, and to a lesser extent, landslides, seismic and volcanic events. The dramatic increase of the costs associated with natural disasters over past decades has fostered interest in identifying and implementing effective means

of reducing vulnerability. This Natural Hazards Mitigation Plan is intended to assist Morrow County in reducing its risk from natural hazards by identifying resources, information, and strategies for risk reduction.

The plan is non-regulatory in nature, meaning that it does not set forth any new policy. It does, however, provide: (1) a foundation for coordination and collaboration among agencies and the public in the County; (2) identification and prioritization of future mitigation activities; and (3) assistance in meeting federal planning requirements and qualifying for assistance programs. The mitigation plan works in conjunction with other County, city and state plans and programs, which are:

- The Natural Hazards Element of the Morrow County Comprehensive Plan;
- Flood Hazard Overlay Zone of the Morrow County Zoning Ordinance;
- City Flood Ordinances;
- Morrow County Community Wildfire Protection Plan;
- Mutual Aid Agreements for fire and emergency services between Morrow and Umatilla Counties; and
- State of Oregon Natural Hazards Mitigation Plan.

The plan provides a set of actions to prepare for and reduce the risks posed by natural hazards through education and outreach programs, the development of partnerships, and implementation of preventative activities such as land use or watershed management programs. The resources and information within the mitigation plan establish a foundation for coordination and collaboration among agencies and the public in Morrow County, identify and prioritize future mitigation projects, and assist in meeting qualifications for federal assistance programs. The actions described in the plan are intended to be implemented through existing plans and programs within the County.

What is Natural Hazard Mitigation?

What is natural hazard mitigation? Natural hazard mitigation is defined as permanently reducing or alleviating the losses of life, property, and injuries resulting from natural hazards through long and short-term strategies. Example strategies include planning, policy changes, programs, projects, and other activities. Mitigation is the responsibility of individuals, private businesses and industries, state and local governments, and the federal government.

Engaging in mitigation activities provides jurisdictions with a number of benefits including reduced loss of life, property, essential services, critical facilities and economic hardship; reduced short-term and long-term recovery and reconstruction costs; increased cooperation and communication within the community through the planning process; and increased potential for state and federal funding for recovery and reconstruction projects.

Policy Framework for Natural Hazards in Oregon

Planning for natural hazards is an integral element of Oregon's statewide land use planning program, which began in 1973. All Oregon cities and counties have comprehensive plans and implementing ordinances that are required to comply with the statewide planning goals. The challenge faced by state and local governments is to keep this network of local plans coordinated in response to the changing conditions and needs of Oregon communities.

Statewide land use planning Goal 7 Areas Subject to Natural Hazards calls for local plans to include inventories, policies, and ordinances to guide development in hazard areas. Goal 7, along with other land use planning goals, has helped to reduce losses from natural hazards. Through risk identification and the recommendation of risk-reduction actions, this plan aligns with the goals of the County's Comprehensive Plan and helps the County meet the requirements of statewide land use planning Goal 7.

The primary responsibility for the development and implementation of risk reduction strategies and policies lies with local jurisdictions. However, resources exist at the state and federal levels. Some of the key agencies in this area include Oregon Military Department, Office of Emergency Management (OEM), Oregon Building Codes Division (BCD), Oregon Department of Forestry (ODF), Oregon Department of Geology and Mineral Industries (DOGAMI), and the Department of Land Conservation and Development (DLCD).

The Disaster Mitigation Act of 2000 (DMA 2000) reinforces the importance of mitigation planning and emphasizes planning for disasters before they occur. As such, this Act established a pre-disaster hazard mitigation program and new requirements for the national post-disaster Hazard Mitigation Grant Program (HMGP). Section 322 of the Act specifically addresses mitigation planning at the state and local levels. States and local communities must have approved mitigation plans in place in order to qualify to receive post-disaster HMGP funds. Mitigation plans must demonstrate that their proposed mitigation measures are based on a sound planning process that accounts for the risk to the individual and their capabilities.

How was the Plan Developed?

The first Morrow County Natural Hazards Mitigation Plan was developed and approved in 2006. The 2016 plan update marks the first update and second version of the County's Pre-disaster or Natural Hazards Mitigation (NHMP). This updated NHMP will consolidate and replace the prior version of the Plan.

The Plan Update Process: In September 2011 the Mid-Columbia Council of Governments (MCOG) in conjunction with a Resource Assistance for Rural Environments (RARE) participant, the University of Oregon Community Service

Center's Oregon Natural Hazards Workgroup convened meetings with Morrow County and other Mid-Columbia communities in order to begin the process to update the natural hazards mitigation plans that were put into place in 2006. Morrow County convened two meetings in February 2012 and began the update process. The process was laid aside for 2 years when staffing time became severely limited after the RARE participant finished his one-year obligation with MCOG. The process was picked up in the Fall of 2013 when contracted staff was hired to finish the update. The updated Plan was developed following a pre-formulated format provided by the Oregon Partnership for Disaster Resilience and described by the Statement of Work in the County's update and review process. Each section of the Plan was updated utilizing the following methods:

The guidance provided in the Oregon Pre-Disaster Mitigation Program Plan Update Training Manual, prepared by the Oregon Partnership for Disaster Resilience, informed the County as to content requirements and provided information resource tips. The major changes to the Plan are:

- Section 1, Introduction was updated in that new steering committee members were introduced and all meetings since 2011 were documented. Plan organization was improved and this was also documented.
- Section 2, Community Profile was updated with the latest demographic information from the 2010 US Census Bureau. Housing and development trends were updated with information obtained from building and zoning permit applications.
- Section 3. Hazard Risk Assessment was updated by the MCOG RARE participant using Oregon Emergency Management's (OEM) Hazard Analysis Methodology.
- Section 4. Mission, Goals and Action Items was updated through the review of the Steering Committee. No major changes were made to the vision, Mission statement and Plan goals. All current action items are included in the Action Item Matrix in this section.
- Section 5. Plan Implementation and Maintenance was updated through the review by the Planning Department and the Steering Committee at the March 5, 2014 meeting. The Convener for Plan implementation and maintenance purposes was deemed to be the Planning Department and Plan maintenance meetings will be held on a semi-annual basis.

Morrow County funded a portion of the 2016 update of the NHMP with support from the University of Oregon through FEMA grant funding.

Who was Involved in the Update Process?

The Morrow County Natural Hazard Mitigation Plan is the result of a collaborative effort between the County, cities, special districts, citizens, public agencies, non-profit organization, the private sector, and regional organizations. The principal movers and shakers are more fully described below:

Morrow County Planning Department Staff: Planning Director Carla McLane, Associate Planner Layne Wolfmueller and GIS Tech Hank Pieper. The Planning Department served as the convener for the NHMP update process.

Garrett Jensen: Resource Assistance for Rural Environments (RARE) program. Garrett developed the updated Risk Assessments for the eight Morrow County hazards and conducted the first two Steering Committee meetings.

Lori Timmons: The Independent contractor hired to complete the update work on the NHMP document and to aid the local jurisdictions with their portion of the NHMP annexes.

The Morrow County Planning Director developed a new NHMP Steering Committee to review and update the mitigation plan and to oversee the planning process. The Steering Committee included both existing members from the original Plan development and new partners to ensure that all community interests maintained active participation in the process. Between February 2011 and March 2014 the Steering Committee convened for 4 update meetings. A final meeting was held in October 2015. Also during the update process, each incorporated community in Morrow County held a risk assessment meeting to update their respective hazard mitigation plans for the NHMP's annexes. This Plan includes documentation of meeting materials and sign-in sheets for each of the Plan update meetings. See Appendix B.

Steering Committee Members

- Steve Myren, Morrow County Emergency Management Lead
- Janet Greenup, Morrow Soil and Water Conservation District
- Steve Rhea, Morrow County Fire Protection
- Larry Burns, Irrigon Rural Fire Protection District
- Shelley Wight, Morrow County Public Health/Emergency Preparedness
- Don Kennedy, Chair, Local Emergency Planning Committee
- Sandi Putman, Morrow County Public Works
- Karen Pettigrew, City of Boardman
- Kim Cutsforth, City of Heppner
- Linda LaRue, City of Lone
- Aaron Palmquist, City of Irrigon
- Jean Brazell, Town of Lexington

Meetings

February 23, 2012. The Steering Committee met for an introductory meeting with the RARE participant, Garrett Jensen, to provide an overview of the plan update process. The agenda covered primary goals/anticipated outcomes, grant opportunities, the

process and timeline, expectations of the steering committee and strategies for public involvement. A review of the County's current Action Items was also conducted.

February 23, 2012. The same day as the kickoff meeting and later in the afternoon, the County conducted the second meeting. The agenda included a review of the hazard inventory and an update of the hazard analysis matrix. The Committee discussed the risk assessment for the hazards and outlined potential severity/impacts of identified hazards. Critical facilities and infrastructure were also reviewed.

November 19, 2013. The third meeting of the Steering Committee was convened. The Plan mission and vision statement and the goals were reviewed. Action Items were discussed.

December 2, 2013. The County held a meeting with the natural hazards contacts of the 5 incorporated areas: Irrigon, Boardman, Lexington, Heppner, and Lone. Each city was provided a copy of their Action Items from the 2006 natural hazards plan. It was discussed how the cities could proceed with their respective communities in the update of their individual annexes. It was agreed that the County would attend a city council meeting in the next 2 months to conclude the city natural hazard annex process.

January 7, 2014. The Morrow County Citizens Economic Development Task Force (MCCEDTF) held a meeting at Heppner City Hall. At this meeting, the Natural Hazard Mitigation Plan and the process being undertaken concerning the update was explained. The Task Force members acknowledged the process and discussed various problems with their communities regarding natural hazards.

January 14, 2014. The County staff discussed the Natural Hazard Mitigation Plan update requirements with the Lexington Town Council.

January 24, 2014. The County staff discussed the Natural Hazard Mitigation Plan update requirements with the Heppner City Council.

February 4, 2014. The County staff discussed the Natural Hazard Mitigation Plan update requirements with the Boardman City Council.

February 11, 2014. The County staff discussed the Natural Hazard Mitigation Plan update requirements with the Lone City Council.

February 18, 2014. The County staff discussed the Natural Hazard Mitigation Plan update requirements with the Irrigon City Council.

March 4, 2014. The fourth Steering Committee meeting was convened. The following plan components were reviewed and updated by the Committee: The prioritization process was discussed. The Committee decided to follow the process outlined in the Plan and to discuss and update action item priorities at plan maintenance meetings. The Committee discussed the advantages of meeting regularly and decided to meet on

a semi-annual basis, specifically in the Spring and in the Fall. The Planning Department will be responsible for convening the meetings. The 2006 Plan action items were reviewed. The action items that involved incorporation of the mitigation strategy into existing plans and programs was continued. Continued public involvement was discussed, among the topics was how the Red Cross could be involved in public education regarding health and safety training (CPR, etc.).

October 20, 2015. This was a NHMP maintenance meeting that was involved with the ongoing Plan update. At this meeting, the Steering Committee was introduced to the newest version of Parts 1 and 2 of the Plan into which the latest OEM comments had been incorporated.

April 5, 2016. In order to meet FEMA requirements to prioritize Action Items according to the process outlined within this Plan, a tool was developed. The Natural Hazard Mitigation Plan Steering Committee (cities) met in order to discuss the Action Item prioritization tool and develop a timeline to complete their Action Item prioritizations.

Regional Survey and Public Outreach

Public outreach began in the Fall of 2011 when the Oregon Partnership for Disaster Resilience (OPDR) distributed a mailed survey to 7,500 random households throughout the eight counties updating plans in the Columbia Gorge Region, 400 of which were sent to Morrow County households. The OPDR developed and distributed the survey in partnership with the University of Oregon's Resource Assistance for Rural Environments (RARE) Program. This voluntary survey consisted of 24 questions divided into four sections: natural hazard information, community vulnerabilities and hazard mitigation strategies, mitigation and preparedness activities in our household; and general household information. OPDR and RARE designed the survey to determine public perceptions and opinions regarding natural hazards. Questions also focused on the methods and techniques survey respondents preferred to use in reducing the risks and losses associated with natural hazards. Appendix C includes the survey instrument.

How is the Plan Organized?

Natural Hazard Mitigation Plan - Part One:

The first part of the Plan provides specific information and resources to assist readers in understanding the hazard-specific issues facing Morrow County citizens, businesses, and the environment. It consists of 5 Sections:

Section 1: Introduction

The Introduction briefly describes the County's mitigation planning efforts and the methodology used to develop the plan. It also includes information about the Steering Committee's role and how other stakeholders provided input.

Section 2: Community Profile

The Community Profile briefly describes the County in terms of demographic, economic, and development trends as well as geography and environment, housing and transportation.

Section 3: Natural Hazard Risks

This section describes the eight natural hazards that affect Morrow County. Each will be fully assessed in the natural hazard annexes in Part Two of this Plan.

Section 4: Mitigation Plan Goals and Action Items

This section describes the plan components that guide implementation of the identified mitigation strategies. This section also documents the plan vision, mission, goals, objectives, and actions. A table of all Morrow County Action Items is included at the end of this Section.

Section 5: Plan Implementation and Maintenance

This section provides information on the implementation and maintenance of the plan. It describes the process for prioritizing projects, and includes a suggested list of tasks for updating the plan to be completed at the semi-annual and 5-Year review meetings.

Natural Hazard Mitigation Plan - Part Two: Hazard Specific Annexes

The purpose of the hazard specific annexes is to assess the natural hazard risks for each listed hazard and provide additional resources and documentation of the hazard. Where city risk assessments differ from the County-wide assessments, they are analyzed within the specific city annex. The hazard specific annexes included with this plan are the following:

- Drought;
- Earthquake;
- Flood;
- Landslide/Debris Flow;
- Volcanic Event;
- Wildfire;
- Windstorm; and
- Winter Storm

Natural Hazard Mitigation Plan - Part Three: City Annexes

This annex contains the summaries of participation by the cities, special hazard information particular to the cities (when risks within a city vary from the risks facing the rest of the jurisdiction, it will be separately assessed within the city annex), the city Action Items, public process and copies of the cities' Resolutions of Adoption of this Plan.

Natural Hazard Mitigation Plan - Part Four: Resources Appendices

The resource appendices are designed to provide users of the Morrow County Natural Hazards Mitigation Plan with additional information to assist them in understanding the contents of the mitigation plan, and provide them with potential resources to assist with Plan implementation. The resources include:

- **Resource Directories for State and County Multi-Hazard, Flood, Wildfire and Landslides Mitigation Resources**

This appendix includes local, regional, state and federal resources for some of the hazards addressed in the Plan. The directory also includes key publications and additional resources. The Community Service Center's Oregon Natural Hazards Workgroup at the University of Oregon Natural Hazards Workgroup at the University of Oregon developed this appendix.
- **Planning and Public Process**

This appendix includes evidence of the public process involved in the development of this Plan. Steering Committee attendance, meeting minutes, agendas are included.
- **Regional Natural Hazard Public Opinion Survey**

This appendix includes the survey instrument for the 2012 Regional Household Preparedness Survey.
- **Existing Plans, Policies, and Programs**

The existing plans, policies and programs in Morrow County are listed in this appendix. The first section covers plans and policies on the books for the County and the second section covers social service providers.
- **List of Acronyms**

This appendix provides a list of acronyms for county, regional, state and federal agencies and organization that may be referred to within the Morrow County Natural Hazards Mitigation Plan.
- **Action Items**

Located in this appendix are the Action Items submitted by the County and cities during the development and subsequent update of the Plan along with any associated Mitigation Action Progress Report Forms.
- **Maps**

This appendix holds the maps created to illustrate in a map format the following information: 1) critical facilities, and 2) economic, cultural and historic assets. There are two maps for each category showing the whole County and then each city.

Section 2

Community Profile

This section provides information on the characteristics of Morrow County, in terms of demographic, economic, and development trends as well as geography and environment, housing and transportation. Many of these community characteristics can affect how natural hazards impact communities, and can affect how communities choose to plan for natural hazard mitigation. Considering these characteristics during the planning process can assist in identifying appropriate measures for natural hazard mitigation.

Geography and Climate

Morrow County lies along the Columbia River with 35 miles of shoreline, almost midway between the eastern and western boundaries of Oregon. Morrow County has an elevation at its highest point of 6000 feet in the mountains south of Heppner to 260 feet above sea level at the Columbia River to the north. The County contains 1,321,600 acres of land of which 40 percent is range land, 35 percent crop land and 18 percent is forested. It is part of the 100,000 square-mile Columbia Basin Plateau between the Rocky Mountains and the Cascade Range in Washington, Oregon, and Idaho. Most of Morrow County is underlain by the Miocene Columbia River Basalt Group rocks, which were deposited in large lava flows sometimes hundreds of feet thick. The Columbia Basin was also the scene of the Missoula Floods, which were the greatest catastrophic floods ever documented in the geologic record. The area that became north Morrow County was part of this event as the Columbia River was the drainage for these catastrophic floods.

The climate is relatively dry because the Cascade Mountains serve as an effective moisture barrier causing storms to dump much of their moisture west of the peaks leaving areas to the east, including Morrow County, in a "rain shadow." This region has a definite winter rainfall climate. The months of November through February generally receive the most precipitation due to winter storms, which bring rain to lower elevations and snow to higher areas characteristic to the southern portion of the County. Annual totals vary and are proportional to elevation; the average annual rainfall for Boardman in the northern and lower portion of the County is 8.61 inches while Heppner, which is a part of the higher areas, receives 10.44 inches annually. Occasional summer thunderstorms bring localized, occasionally heavy rain.

The County is part of the Umatilla Drainage Basin, which flows into the Columbia River. The Butter Creek in Morrow County is tributary to the Umatilla River, which flows into the Columbia River. The Willow Creek, whose headwaters are in the mountains above Heppner, flow through the communities of Heppner, Lexington and Lone, and joins the Columbia River just outside of Morrow County to the west. There are other minor

drainages, which flow into Willow Creek, which have been locally renowned for periodic flash flooding such as Balm Fork, Hinton Creek, Rhea Creek, and Shobe Creek.

The County has sedimentary deposits generally less than 100 feet thick, some of which are wind-deposited loessial soil which support extensive wheat farming. Where the deposits are thin or discontinuous, they provide grazing for cattle and sheep. In the northern portion of the county are deposits left during the glacial melt water transport of the Missoula Floods. They are the primary type of sedimentary deposits present there and are generally less than 100 feet thick and support the extensive irrigated agriculture present in the northern portion of the County.

Population and Demographics

Permanent settlements in what would become Morrow County were established in the canyons of Willow and Butter Creek before 1870. In August of 1872 Henry Heppner and Jackson Lee Morrow opened a store on Stansbury Flat near the forks of Willow Creek to service the needs of the stockmen settled on Willow Creek, Balm Fork, and Rhea Creek. These stockmen were tired of hauling goods themselves from the Columbia at Umatilla Landing or Castle Rock. Sheep were the chief product of the Morrow County rangelands which eventually changed to a grain-based economy after the establishment of National Forest lands, grazing restrictions and the spread of sagebrush onto the grasslands. The population slowly grew through the twentieth century despite economic hard times in the 1930s and the need for the young people to look for work outside of the County if they weren't interested in the farming profession. During the 1950s and 1960s Heppner's population grew due to the post WWII baby boom and employment opportunities at the sawmill. The next two decades saw the introduction of irrigated agriculture and the formation of the Port of Morrow in the northern portion of the County. Portland Gas and Electric developed a coal fired power plant in the Boardman area and the population in the northern part of the County began to rise due to the need for agricultural and industrial workers. Morrow County experienced a higher growth rate than the overall Umatilla/Morrow County region, which averaged 1.8 percent from 1998 to 2004. During the same time period, Morrow County managed a population growth rate of 2.4 percent, which meant an increase of more than 3,900 residents in that time period, pushing its total to 11,750 in 2004. During that period, between 1998 to 2004, Morrow County's growth rate was well above the 1.19 percent Oregon trend. Since 2006, population growth stopped and the Oregon Blue Book listed the total 2011 population at 11,270 persons. Most of the population in the County has remained within the boundaries of the incorporated cities (average around 60%) over the last 30 years.

Morrow County has four incorporated cities and one town as listed below:

Population in 2011

City of Heppner	1290
City of Boardman	3235
City of Lone	330
City of Irrigon	1830
Town of Lexington	240

The cities of Boardman and Irrigon are situated in the northern portion of the County next to the Columbia River and contain 45 percent of the County's population. The cities of Heppner, Lone and the Town of Lexington are situated in the southern portion of the County along Willow Creek and contain 16.5 percent of the County's population. This points to the fact that most of the population of Morrow County lives in the northern third of the County.

The impact in terms of loss and the ability to recover vary among population groups following a disaster. Historically, 80% of the disaster burden falls on the public. Of this number, a disproportionate burden is placed upon special needs groups, particularly minorities and the poor.

Vulnerable Populations

One characteristic of disasters is that they can exceed the ability of emergency response agencies to provide assistance promptly. In a major disaster, members of the public may be on their own for several days to weeks in some cases. Individuals may need to go for several days without utilities and food and water sources. Disasters may also isolate individuals by damaged transportation routes. Not all people are able to respond to these conditions appropriately. Many people are in vulnerable populations that may have difficulty following official instructions and taking protective actions. For instance, someone who is developmentally disabled or deaf may not be able to hear or understand instructions on sanitation, evacuation routes or shelter locations. Vulnerable populations are those groups that possess specific characteristics that inhibit their ability to prepare for, respond to, or recover from a disaster. These include people who are poorly or completely not integrated into the fabric of the County's social structures. These can include isolated elderly people living on their own, transient populations, youth populations, disabled and mentally ill populations, drug addicts, as well as low income populations. These groups are more heavily impacted because they may lack the necessary knowledge, skills, social support structures, or the mental and physical abilities necessary to take care of themselves. Historically, vulnerable populations present a special challenge to emergency managers and response agencies and they are more likely to be victims of a disaster. Fortunately, many people that fall into one of these categories have families, friends, neighbors, and other caretakers that will be able to assist them. But many of them do not have adequate support, and those who do may not be able to rely on it in a major event.

Elderly

According to the 2010 Census figures from the U.S. Census Bureau, persons 65 and older made up 12.6 percent of the population in Morrow County. Furthermore, 7.4 percent of the 3,776 households had someone living alone who was 65 years of age or older. This percentage amounts to about 279 people. As the baby boomer generation enters their 60's, the senior population can only be expected to increase.

Assisted Living Facilities:

There are 2 assisted living facilities. The Willow Creek Terrace Facility has 18 beds. The St. Patrick Senior Housing facility has 16 apartments.

Youth

According to the Oregon Education Data Book, Vol 2, the student count in both school districts was 2367 students in the Fall of 2005/06. Of those, there were 50 students classified as "special education students" in the Lone School District and 287 in the Morrow County School District (total percentage of 14.2%). Special Education Students are defined under the guidelines of the Federal Individuals with Disabilities Education Act (IDEA) and are considered disabled.

Minorities

The 2010 Census provides the following population information by race and ethnicity:

Morrow County Population by Race in 2010:

White	77.69%
Black	0.49%
American Indian	0.93%
Asian/Pacific Islander	0.13%
Other	19.52%

Morrow County Population by Ethnicity in 2010:

Hispanic Ethnicity	31.3%
Non-Hispanic Ethnicity	68.7%

Residential Treatment Facilities

Morrow County has 2 treatment facilities for the housing and treatment of people with behavior and mental health problems. They are:

- Columbia River Ranch near Boardman with 11 beds
- Community Counseling Solutions near Heppner with 8 beds

Each facility maintains a permanent staff with a 24-hour presence.

Poverty Rates and Disabled Populations

According to the 2010 Census, the Morrow County population grew 1.62 percent between 2000 and 2010. The U.S. Census Bureau estimated the poverty status of County residents to be 16.7 percent (1,866 people). This was an increase of about 34 percent in the number of persons living in poverty (1,141 people) since 1989.

According to the Oregon Poverty Report of 2011, about 44 percent of the people living in poverty in Morrow County are children younger than 18 and people age 65 or older. If the total number of people in poverty is 1,866, that means 821 youth and seniors live below the poverty threshold.

According to the Social Security Administration data of 2012, a total of 204 persons received benefits. Of that total, most of the people who received benefits were in the blind and disabled category.

Aged	14
Blind and Disabled	190
	TOTAL 204
Under Age 18	33
Ages 18 - 64	142
Age 65 and Older	29
	TOTAL 204

Employment and Economics

The first entrepreneurs in Morrow County were the sheep herders who took advantage of the virgin grasslands in the area as open pastureland in the early 1870s. Not long afterward, Henry Heppner and Jackson Lee Morrow opened a store and a real economy was born. The portion of Morrow County first settled were the areas around the Oregon Trail and Willow Creek. The Oregon Trail came almost straight west from Pendleton through what would later become north central Morrow County. Commercial and financial establishments proliferated in Heppner during the decade of the 1870s and the census-taker counted 318 citizens in the city in 1880. The Oregon-Washington Railroad & Navigation Company, which would eventually become the Union Pacific Railroad, completed their The Dalles to Wallula line in April of 1881 and a branch to Heppner was put in by 1889. When Morrow County was established in 1885 Heppner won the contest with Lexington for County seat. The economic basis of the Heppner area continued to be sheep production with the addition of logging from the 1880's until the Depression in the 1930s when all but the largest grazing operators went away. By

1939 Highway 74, the Heppner Highway, from Lexington and Heppner along Willow Creek through Lena east towards Pendleton had been built. The rail spur going north from Heppner to the Willow Junction at the Columbia River helped to encourage wheat farming and the farmers began to look to the north for more land but the northern portion of the County was, in the early years, relatively unpopulated.

The economics of the County began to change when irrigated agriculture was developed in the northern portion of the County and the Port of Morrow opened for business in 1957. The Cities of Boardman and Irrigon started to expand as the demand for workers at the Port and on the farms began to grow.

Current Economic Base

Northern Morrow County is dependent on large-scale corporate agri-business, which can be traced to 1963 when the Boeing Company leased 100,000 acres of land south of Boardman and pioneered circle irrigation in this region. This property continues to be in agricultural production, which includes the production of wheat, potatoes, alfalfa and milk. The Port of Morrow also hosts many large agri-businesses including those for the production of French fries, dried onion production and dairy products. Other significant contributors to the County's tax base are the regional solid waste landfill located in north Morrow County and the PG&E coal fired electrical plant south of Boardman and co-generation plant at the Port of Morrow. According to the Oregon Employment Department Regional Profile for Umatilla and Morrow County, the projection for employment change for private industry until 2020 predicts that educational and health services, natural resources and mining will increase the most. Professional and business services are expected to shrink. There is a fairly flat forecast for government jobs. As the region recovers from a widespread economic recession, the Morrow/Umatilla County region is expected to add over 4,600 jobs between 2010 and 2020.

Housing in Morrow County

Housing development types and year-built dates are important factors in mitigation planning. Certain housing types tend to be less disaster resistant and warrant special attention: manufactured homes, for example, are generally more prone to wind and water damage than standard stick-built homes. Generally the older the home is, the greater the risk of damage from natural disasters. This is because stricter building codes have been developed following improved scientific understanding of plate tectonics and earthquake risk. For example, structures built after the late 1960s in the Northwest and California use earthquake resistant designs and construction techniques. In addition, FEMA began assisting communities with floodplain mapping during the 1970s, and communities developed ordinances that required homes in the floodplain to be elevated to one foot above Base Flood Elevation. Housing characteristics provided by the U.S. Bureau of the Census.

Selected Housing Characteristics (2008 - 2012) for Morrow County are listed as percentages as follows:

Housing Type

Single Family	59.2%
Multi-Family	11%
Manufactured Homes	28%
Other	1.8%

Housing - Year Built

Pre-1939 - 1959	24.6%
1960 - 1979	27.5%
1980 - 1999	35.4%
2000 - 2012	12.5%

Local data collected from Zoning Approvals in the unincorporated areas of the County suggest the ratio of manufactured homes to stick-built homes is higher in north Morrow County. In the years 1990 through 2005 eighty four percent of the new dwelling approvals were for manufactured homes in Morrow County and most of them were in the northern portion of the County. The southern portion of the County has the highest ratio of pre-1939 to 1959 built houses with the majority of the houses being stick-built. This trend leveled off in the years 2006 through 2013, wherein an equal number of manufactured and stick-built homes were built. In general, the housing in the southern portion of the county is older and stick-built versus the northern portion of the County where the housing is newer and has a higher manufactured home ratio.

Land and Development

Morrow County has an acknowledged Comprehensive Plan and Zoning and Subdivision Ordinances, which are in compliance with Oregon's land use laws. Morrow County's Comprehensive Plan and land use Ordinances provide opportunities for citizens to achieve their land use and property development objectives in accordance with Oregon State law.

Potential for Rural and Urban Development

The latest Oregon Office of Economic Analysis data estimates that the population in the County will increase by 15 percent to 13,011. The Office of Economic Analysis publishes population estimates by County out to the year 2050.

In evaluating potential development of existing land uses and population as well as its distribution, two types of development are considered. One is growth in residential housing development. This will likely take the form of new subdivisions on currently vacant land within an Urban Growth Boundary. These vacant parcels are distributed

largely south and west of Irrigon and south and west of Boardman. Additional residential development outside of the Urban Growth Boundaries will be limited because the County enforces a two-acre minimum for residential development in rural residential zones.

The other opportunity for growth is through economic development led by expansion of Port of Morrow industrial facilities throughout the County. The Port, through its 30-year history, has developed a significant inventory of developable land at its three industrial park sites: The Boardman Industrial Park, located east of Boardman and north of U.S. Highway 730; the Airport Industrial Park, located west of Tower Road; and the South Morrow County Industrial Park, located at the Kinzua sawmill complex just outside of the City of Heppner.

Development Trends

Building permit data for the last five years has averaged about 55 structural building permits per year. This number includes new manufactured home installation and all other structures, including commercial buildings and stick-built houses. The trend has been as follows:

Building Permits Issued:

2009	55
2010	63
2011	48
2012	56
2013	54
2014	65
2015	43

Generally, development in the southern portion of the County has been driven by recreation activities such as hunting and use of the off-road-vehicle park operated by the County. Morrow County expects to see further interest in development with focus on the recreation industry.

The northern portion of the County is expected to see further agri-industrial and energy related development. There is interest in the expansion of the dairy industry, biofuels, and wind energy development. The northern portion of the County will also see continued interest in the further use of the Boardman Bombing Range and the development of the former Umatilla Army Depot.

Natural Hazards and Development

The natural hazards that could affect the developing areas of Morrow County are most likely to be wildfire, winter storms and drought in the southern portion of the County. It

is expected that as people establish residences in the County's forested lands, there will be a significant increase in threats to life and property in these areas. During winter storms, the roads and highways of southern Morrow County can become temporarily impassible due to snow or ice accumulation.

The farmers, as well as local businesses that rely on the well being of the local farming economy of north and south Morrow County, are affected by a prolonged regional drought. The farmers experience reductions on water use imposed by water right restrictions and lowered water tables. Dryland farmers without access to irrigation systems have to rely on assistance programs in order to survive prolonged drought situations. In turn, the local businesses feel the belt-tightening by the farmers as they buy fewer products and services in the local area.

Development in the northern portion of Morrow County is less affected by natural hazards. Wildfire would be within undeveloped shrub-steppe areas and in dry wheat fields. Drought would worsen a wildfire situation. Flooding in the northern portion of Morrow County is controlled by the dam systems on the Columbia River, but the road systems have not been immune to local flooding situations due to summer and spring storm events. The movement of agricultural and industrial products from Morrow County on the transportation systems leading to the west and east could be potentially affected by winter storms or other events such as a seismic or volcanic event occurring in the wider mid-Columbia region.

Transportation and Commuting Patterns

Road and Highway Transportation

Morrow County is connected to the federal interstate highway system via Interstate 84, which parallels the Columbia River in the north end of the County. Interstate 84 links the County to I-5 to the west through Portland, and to I-80 and I-15 to the south and east to Boise and Salt Lake City. Interstate 84 also links the County to I-82 north to the Tri-Cities in Washington State. Other State highways within the County include:

- U.S. 730 serving Irrigon and the Port of Morrow and providing a link between I-84 and I-82 at Umatilla;
- State Highway 74, the Heppner Highway, which crosses the middle of the County from east to west serving Lone, Lexington, and Heppner;
- State Highway 207, which cross the County from north to south through Butter Creek Junction, Lexington, Heppner, and Hardman and into Wheeler County;
- State Highway 206, which crosses the southern portion of the County from Gilliam County through Ruggs to Heppner.

Bridges:

The following represents Morrow County's bridge inventory:

State Highway Bridges	60
County Highway Bridges	51
City/Municipal Bridges	12
Historic Bridges	1

The historic bridge is the Spring Hollow Road Bridge on Upper Rhea Creek, which was built in the early 1900s. This bridge continues to provide a link for farmers to highways 207 and 74. It is estimated that approximately 60,000 bushels of grain and 1,000 head of cattle move over this bridge annually.

Morrow County residents use the highway system to drive to work either in the local economy or within the larger "laborshed." A laborshed is the area or region from which an employment center draws its commuting workers irrespective of natural or political boundaries. In this case the regional commuting area includes Gilliam County, Umatilla County and Benton and Franklin Counties across the Columbia River in Washington State. According to the U.S. Census Bureau, Morrow County sent 1,310 workers to Umatilla County, which was a significant 28.2 percent share of its 4,643 resident workers.

Not only do workers travel to other regional areas to their jobs, shopping opportunities are extremely limited in the County for all but basic necessities. Most people travel out of the County for the more varied shopping opportunities offered in Hermiston in Umatilla County and the Tri-Cities area in Washington State.

The road system in Morrow County generally follows drainage corridors in the southern portion of the County and is straight and rolling in the northern portion of the County. The Morrow County Transportation System Plan identifies safety issues for the transportation network in the County. The Transportation System Plan mentions the need for an additional north/south connection between Boardman and Lone in addition to Bombing Range Road, which is the only existing connection that wholly lies within the County. A second north/south route would provide an alternate for emergency vehicles and a fire break in the middle portion of the County where there is the potential for large losses due to a wildfire in the wheat fields and desert grasslands pushed by prevailing easterly winds.

Bus Services

Morrow County currently has a Special Transportation dial-a-ride service run with volunteer drivers. This service consists of 3 busses in Heppner, one in Irrigon and one in Boardman. The bus service is coordinated by the Special Transportation Coordinator of Morrow County.

The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) also runs a bus service that serves Irrigon as its westernmost stop. This is a free, regular, 6 day per week transit of the "Hermiston Hopper" route.

Greyhound Bus Line service traverses the County on Interstate 84. Local travelers who wish to use a Greyhound bus must board in Stanfield in Umatilla County or Pasco in Washington State. The closest stop to the west is in The Dalles.

Rail Transportation

Morrow County is served by one national freight rail carrier, the Union Pacific Railroad. Union Pacific provides freight rail service from Chicago west to the Pacific Ocean through the Port of Morrow on the Columbia River. The Port of Morrow operates a rail spur at their Boardman location, which is serviced by Union Pacific.

River Transportation

Morrow County's location on the Columbia River provides direct access to the Columbia River transportation system, one of the most modern intermodal transportation networks in the country. This commercial waterway extends from the Pacific Ocean over 465 miles into eastern Washington and Idaho, and includes eight dam and lock complexes. This transportation system is accessed through the Port of Morrow in the Boardman area and the Morrow County Grain Growers access at the end of Paterson Ferry Road.

Air Transportation

Morrow County has two public airports. The Lexington Airport is approximately one-half mile from the center of the Town of Lexington on a plateau approximately 200 feet above town. Highway 207 passes immediately east of the airport and serves as the primary surface access route to the airport. According to information contained in the 2001 Airport Layout Plan Report, the Lexington Airport site has been in aviation use since early 1945. The Lexington Airport has been a base for agricultural spraying operators for many years in addition to accommodating general aviation, business, medical evacuation, and charter activities. The Lexington Airport has one paved, lighted runway (8-26), which is oriented on a 080-260 degree magnetic alignment and is approximately 4,300 feet long. The airport has been owned and operated by Morrow County since 1960.

The Boardman Airport is located approximately five miles west of Boardman and is accessed from Tower Road off of Interstate 84. The Boardman Airport has a single paved and lighted runway, which is oriented on a 040-220 degree magnetic alignment and is approximately 4,200 feet long. Historically the Boardman Airport has served military aviation and a variety of general aviation users including agricultural aviation.

The Boardman Airport sits directly under the Boardman Military Operations Area and Restricted Area which means that aircraft operating at Boardman Airport must avoid flying into these areas of controlled airspace unless permission is granted in advance by the controlling agency (U.S. Navy). Three major electrical Bonneville Power Authority (BPA) transmission lines are located between the runway and Interstate 84 along a 300-foot wide easement. The Boardman Airport is owned and operated by the Port of Morrow.

Natural Hazards and Transportation Patterns

Morrow County experiences disruptions to the transportation system due to the following factors:

1. Flooding due to heavy rain storms on roads and highways;
2. Impassable conditions due to winter ice/snow storms and extreme cold weather;
3. Heavy tumbleweed (Russian thistle) accumulation in roads due to windstorms over agricultural areas with heavy growth of tumbleweeds.
4. Dust and dirt blowing across roads due to windy conditions, especially near agricultural areas.

Critical Facilities and Infrastructure

Critical facilities are those that support government and first responders' ability to take action in an emergency. They are a top priority in any comprehensive hazard mitigation plan. Individual communities should inventory their critical facilities to include locally designated shelters and other essential assets, such as fire stations, and water and waste treatment facilities. Listed below are the critical facilities in all of Morrow County:

Hospitals	1
Hospital Beds	12
Police Stations	2
Fire & Rescue Stations	9
School Districts	2
Power Plants	2-1050MW
# of Dams	10
# of Dams with Threat Potential	1

Pioneer Memorial Hospital is located in Heppner, which is also the location of the Morrow County Health District's Emergency Medical Services. The Morrow County Emergency Medical Services include six ambulance vehicles located at four separate dispatch sites. Two vehicles are located in Heppner, two in Boardman, and one each in Irrigon and Lexington. The community of Lone has a First Response Vehicle. In a

medical emergency, south Morrow County residents are transported to Pioneer Memorial Hospital in Heppner where Trauma Level IV services are available. If necessary, patients can be flown via helicopter or fixed-wing aircraft to higher levels of trauma care in: Bend, Oregon; Portland, Oregon; or Walla Walla, Washington. Patients in the north end of the county can be transported to Trauma Level III services in Hermiston, or to higher level care centers if needed.

The Morrow County Sheriff's office is located in Heppner. Law enforcement services are provided by the County Deputies to the Cities of Heppner, Lexington, Lone, and Irrigon. The Sheriff's office has two satellite locations, one in Irrigon and one in Boardman. The City of Boardman provides law enforcement services for its citizens within the Boardman city limits.

Morrow County has 6 fire stations, mostly staffed with volunteer fire fighters. In addition, there are six rural fire protection districts within the County which are Heppner, Lone, Irrigon, Boardman, S. Gilliam, and Pilot Rock Rural Fire Districts. In the Rural Fire Districts, there are only three paid full time fire fighters, the rest are strictly volunteer. The Oregon Department of Forestry, Morrow County and the U.S. Forest Service and Bureau of Land Management protect the forested portions of southern Morrow County under a "closest forces" concept. The Oregon Department of Forestry and the U.S. Forest Service have mutual aid agreements with the rural fire districts within Morrow County that allows for assistance to be provided regardless of jurisdiction.

There are 2 power generation plants in Morrow County, both owned and operated by Portland General Electric. The coal-fired Boardman facility is about 20 miles south of Boardman and produces about 348.2 MW of electricity. The natural gas-fired Coyote Springs facility is located in the Port of Morrow and produces about 241 MW of electricity.

Among the dams in Morrow County, the Willow Creek dam is the most well-known. Its construction was completed in 1983 and was the first major dam constructed in the United States using the roller compacted concrete technique. Built to prevent the reoccurrence of the disastrous 1903 flood, it controls the flow of Willow Creek and Balm Fork above Heppner. Other dams in Morrow County include the Carty West Dam, which provides water to the PGE Boardman coal fired plant, Cutsforth Dam, and Lake Penland Dam.

Historic and Cultural Resources

Historic and cultural resources such as historic structures and landmarks help to define our community and could also be sources of tourism dollars. Because of their role in defining and supporting the community, protecting these resources from the impact of disasters is important.

The locations in Morrow County that are on the National Register of Historic Places are:

- Gilliam & Bisbee Building in Heppner
- Heppner Hotel in Heppner
- Morrow County Courthouse in Heppner
- Oregon Trail, Wells Springs Segment
- Hardman IOOF Lodge Hall

Parks and Recreational Facilities

- Morrow County Off Highway Vehicle (OHV) Park has over 6,200 acres in south Morrow County adjacent to Highway 207. This park has many miles of off-road trails and is available for winter use by snowmobile and cross-country ski enthusiasts. The OHV Park also has spaces for recreational vehicles (RVs) and small cabins. The OHV Park is owned and operated by Morrow County.
- Cutsforth Park is located in the southern Morrow County 22 miles south of Heppner. Located along the Blue Mountain Scenic Byway, it offers horseshoe pits, a campground, the nature trails, and equestrian trails on adjacent USFS property. Cutsforth Park is owned and operated by Morrow County.
- Anson Wright Memorial Park is located 26 miles southwest of Heppner on State Highway 207. It opened in 1967 on land originally owned and then donated by the Wright family. The park has full and partial RV hook-ups as well as tent sites. It also offers restrooms with showers, a stocked fishing pond, horseshoe pits, and day use areas for picnicking. Anson Wright Park is owned and operated by Morrow County.
- Quesnel Park is located on the Columbia River on the north side of the Threemile Canyon Exit from Interstate 84. It contains about 265 acres and offers boating and other water sport activities as well as camping and fishing opportunities. It is owned and operated by the U.S. Army Corp of Engineers.
- City Parks in Morrow County include the Boardman Park in Boardman, the Irrigon Skate Park and Park/Marina in Irrigon, Hager Park, City Park and the 1903 Park in Heppner. Lone has a City Park and Lexington has a dirt bike park and a small park at the Odd fellows Hall. The parks in Boardman and Irrigon offer marine access to the Columbia River as well as picnicking and day use activities.
- Morrow County, in cooperation with Boardman, Irrigon, The U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, the Port of Morrow and other local interests developed the concept of the Heritage Trail, which is a continuous trail approximately 25 miles long, for walkers, bicyclists and other non-motorized travelers and recreationists that loosely parallels the Columbia River and spans the full width of north Morrow County.

- The Blue Mountain Scenic Byway, designated in 1989 under the National Scenic Byway Program, allows east-west highway travelers an alternate route between the Columbia River near Arlington and Baker City. This scenic byway covers 130 miles of paved, two-lane road, which crosses Morrow County on Highway 74 from Cecil through Lone, Lexington, and Heppner. At Heppner the byway continues on Willow Creek Road, then Forest Service Road 53 as it climbs into the Umatilla National Forest.

Wildlife Refuges and Management Areas

- Umatilla National Wildlife Refuge: The Umatilla National Wildlife Refuge was established in 1969 to restore Columbia River wildlife habitat lost to construction of the John Day Dam. The Refuge is located on the Washington and Oregon sides of the river from Irrigon to Crow Butte across from Boardman. It includes the McCormack Slough west of Paterson Ferry Road and a portion of land west of Boardman on the river. The Refuge is managed to meet its wildlife objectives to produce Great Basin Canada geese, to provide habitat for mallards and Canada geese during spring and fall migrations, and to provide habitat for other migratory birds. Mallards and Canada geese are the most numerous waterfowl on the refuge during spring and fall migrations. During their peak in mid-to late November there are about 300,000 mallards and nearly 30,000 Canada geese on the refuge. Public recreation activities are also available on the Refuge. Among the many activities available are fishing, boating, and observation and photography of wildlife.
- Umatilla Hatchery, Irrigon: Located just west of Irrigon, the fish hatchery was authorized by the Northwest Power Planning Council with funding provided by the Bonneville Power Administration on land owned by the U.S. Army Corp of Engineers. Operated by the U.S. Fish and Wildlife Service, the hatchery began operations in 1991. The Hatchery is used for egg incubation and rearing of spring Chinook, fall Chinook, and summer steelhead. The young fish are reared for release into the Umatilla and Snake Rivers in order to contribute to the sustainability of naturally produced native fish populations and to partially mitigate for fish losses caused by hydroelectric dams on the Columbia River system.
- Irrigon Hatchery, Irrigon: The Oregon Fish and Wildlife Department runs a fish hatchery also on the west side of Irrigon adjacent to the Umatilla Hatchery. This hatchery rears steelhead as well as offering wildlife viewing for visitors.
- Three Mile Canyon Conservation Area: In 2000 the owners of the 93,000 acre Threemile Canyon Farm agreed to set aside 23,000 undeveloped acres as a conservation area. The area is located northeast of Cecil on the western side of the County. The conservation area, managed by The Nature Conservancy in conjunction with the U.S. Fish and Wildlife Service and the Oregon Department of Fish and Wildlife, protects the burrowing owl, Washington ground squirrel, the

loggerhead shrike, the ferruginous hawk, the sage sparrow and the shrub-steppe environment they inhabit.

Historic Locations

Cemeteries

Morrow County has many old cemeteries, most of which were established in the late 1800s and early 1900s by the first settlers of the County. Some of the more well-known are listed below:

- Cecil Cemetery, Cecil
- Desert Lawn Memorial Cemetery, Irrigon
- Gooseberry Cemetery, Gooseberry
- Hardman IOOF and Hardman Cemeteries, Hardman
- Highview Cemetery, Lone
- Irrigon Cemetery, historical, Paterson
- Lexington Cemetery, Lexington
- Morgan Cemetery, Cecil
- Petteys Cemetery, Lone North
- River View Cemetery, Boardman
- Valby Cemetery, at the Valby Lutheran Church 12 miles west of Lone
- Well Spring Cemetery, on the old Emigrant Road

Oregon Trail

As the emigrants heading west arrived in what is now Morrow County they were getting close to their destination, nevertheless, they had to endure desert heat, dry low hills and sandy washes. This segment of the Oregon Trail has one of the best uninterrupted stretches of pristine Oregon Trail ruts in the State of Oregon. It starts in the Butter Creek area and goes west to the eastern boundary of the Boardman Bombing Range and continues west across farm and ranch lands, through Cecil and west into Gilliam County. Located halfway across this segment is Lower Well Spring. It was a water source which made travel across this dry stretch possible. The spring was always a meager source of water but one eagerly sought by the emigrants, since this portion of the trail was usually traveled in late August or early September when all the intermittent streams were normally dry. This portion of the trail is registered on the National Register of Historic Places.

Columbia River, Route of the Lewis and Clark Expedition (1883-1805)

The story of the Lewis and Clark Expedition is a significant chapter in the history of the United States. The route of the Lewis and Clark party has been designated a National Historic Trail by Congress and included is their route through Morrow County along the Columbia River. On October 19, 1805 the Expedition camped very near Irrigon on Sand Island, now inundated by Lake Umatilla formed by McNary Dam on the Columbia River.

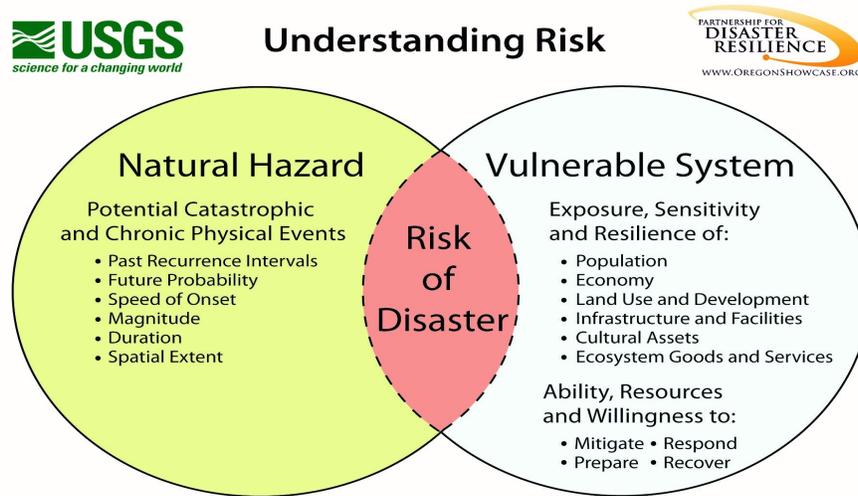
Section 3

Natural Hazards In Morrow County

This section and the natural hazard assessments in Part Two address 44 CFR 201.6(b)(2) - Risk Assessment. In addition, the Plan's discussion of natural hazard risks in this chapter and in Part Two can serve as the factual basis for addressing Oregon Statewide Planning Goal 7 - Areas Subject to Natural Hazards.

The information presented below, along with hazard specific information presented in the Hazard Annex and community characteristics presented in the Community Profile Section will be used as the local level rationale for the risk reduction action identified in Section 4 Mission, Goals and Action Items. The risk assessment process is graphically depicted in Figure 3.1 below. Ultimately, the goal of hazard mitigation is to reduce the area where hazards and vulnerable systems overlap.

Figure 3.1 Understanding Risk



Source: OPDR

Hazard Identification

Morrow County identifies eight major hazards that potentially affect or threaten its geographic area. These hazards are drought, earthquakes, floods, landslides/debris flows, volcanic events, wildfires, windstorms, and winter storms.

Specific hazard information for Morrow County is further analyzed in the Hazard Annex in this Plan.

Morrow County Hazards	Most Affected Locations
Drought	County-Wide
Earthquake	Northern Portion
Flood	Watersheds in Central Portion
Landslide	Isolated Locations in Upper Elevations
Volcanic	County-Wide
Wildfire	County-Wide
Windstorm	County-Wide
Winter Storm	County-Wide

Oregon State Natural Hazard Mitigation Plan Regional Profile - Hazard Characteristics

Drought*

Droughts are not uncommon in Oregon nor are they just an "east of the mountains" phenomenon. They occur in all parts of the State in both summer and winter months. Droughts appear to be recurring and they can have a profound effect on the economy, particularly the hydro-power and agricultural sectors. The environmental consequences are also far-reaching. They include insect infestations in Oregon forests and the lack of water to support endangered fish species. Severe drought conditions preceded the four disastrous Tillamook fires (1933, 1939, 1945, 1951) and pitted farmer against fish propagation groups during the Klamath Basin drought of 2001. The minimum drought loss included about 1200 jobs and \$150 million dollars in goods and services. Local farmers maintain that the costs was considerably more. Water allocation continues to be controversial. In recent years, the state has addressed drought emergencies through the Oregon Drought Council. This interagency (state/federal) council meets to discuss forecasts and advise the Governor as the need arises.

Earthquakes*

The geographical position of this region makes it susceptible to earthquakes from four sources: (1) the off-shore Cascadia Fault Zone, (2) deep intra-plate events within the subducting Juan de Fuca plate, (3) shallow crustal events within the North America Plate, and (4) earthquakes associated with renewed volcanic activity. All have some tie to the subducting or diving of the dense, oceanic Juan de Fuca Plate under the lighter,

continental North America Plate. Stresses occur because of this movement and there appears to be a link between the subducting plate and the formation of volcanoes some distance inland from the off-shore fault zone.

When crustal faults slip, they can produce earthquakes with magnitudes (M) up to 7.0 and can cause extensive damage, which tends to be localized in the vicinity of the area of slippage. Deep intraplate earthquakes occur at depths between 30 and 100 kilometers below the earth's surface. They occur in the subducting oceanic plate and can approach M7.5. Subduction zone earthquakes pose the greatest hazard. They occur at the boundary between the descending oceanic Juan de Fuca Plate and the overriding North American Plate. This area of contact, which starts off the Oregon coast, is known as the Cascadia Subduction Zone (CSZ). The CSZ could produce an earthquake up to 9.0 or greater.

Flood*

The Mid-Columbia region of Oregon is subject to a variety of flood conditions. The most common type of flooding is associated with unseasonably warm weather during the winter months, which quickly melts high-elevation snow. This condition has produced devastating floods through the region. The warm weather events usually occur December through February, and can affect the entire state. Flash floods are almost always a summer phenomenon and are associated with intense local thunderstorms. The flash flood of June 1903 in the City of Heppner is a benchmark event. Heppner's vulnerability to flash flood hazards has since been reduced through the construction of the Willow Creek Dam. The region's other flood events are linked to normal seasonal snowmelt and run-off from agricultural fields.

There are several rivers in the region that produce extreme flood conditions. Surprisingly, the Columbia is not one of them, nor is the lower Deschutes or the John Day. The Columbia is so regulated by up-stream dams that it does not present much of a problem. This is partly reflected in the federal flood insurance rate maps for the various communities along the river. However, a swollen Columbia can back up tributary streams to the point where they constitute a significant hazard. This has occurred on a number of occasions. The lower Deschutes and John Day (Columbia River tributaries) are confined to fairly deep canyons with small floodplains. Consequently, they do not present the flood problems associated with smaller rivers, such as the Umatilla, the Walla Walla, and their tributaries.

Landslide/Debris Flows*

Landslides include any detached mass of soil, rock, or debris that moves down a slope or stream channel. They are classified according to the type and rate of movement and the kind of material that is transported. Debris flows (mudslides, mudflows, debris avalanches) are a common type of rapidly moving landslide that generally occur during intense rainfall on previously saturated ground. They usually begin on steep hillsides as slumps or slides that liquefy, accelerate to speeds as great as 35 mph or more, and flow down slopes and channels onto gently sloping ground. Their consistency ranges

from watery mud to thick, rocky, mud-like wet cement --- dense enough to carry boulders, trees, and automobiles. Debris flows from different sources can combine in canyons and channels, where their destructive power is greatly increased. In general, slopes over 25%, or having a history of landslides, signal a potential problem. Landslides / debris flows occur throughout Region 5, but especially in the Columbia River Gorge (i.e., Hood River and Wasco counties).

Volcano*

The western boundary of Hood River and Wasco counties coincide with the Cascade Range. Several of their communities are very close to Mt. Hood, a well-known volcanic peak. In addition, both counties are less than 100 miles from M. St. Helens, and Mt. Adams in Washington State, two prominent volcanoes. The principal risks from these mountains include air borne tephra (ash), lahars, and pyroclastic flows from a Mt. Hood eruption. The primary risks from Mt. St. Helens and Mt. Adams, separated by distance and the Columbia River, include air borne tephra and the possibility of lahars reaching the Columbia River from Mt. Adams. The remaining counties in Region 5 are at risk from air borne tephra from several Cascade volcanoes.

Wildfires*

Oregon has a very lengthy history of fire in the undeveloped wildlands and in the developing urban/wildland interface. In recent years, the cost of fire suppression has risen dramatically; a large number of homes have been threatened or burned, more fire fighters have been placed at risk, and fire protection in wildland areas has been reduced.

Region 5 contains a variety of forest and grassland ecosystems. The Cascade Mountains form the western boundaries of Hood River and Wasco counties. Morrow and Umatilla counties contain large tracts of Blue Mountain forests and all Region 5 counties have extensive grasslands. Each ecosystem is different. Consequently the probability and management of wildfire would differ from place to place. The buildup of fuel (e.g., brush, dead or dying trees) that leads to devastating wildfires is a very important factor and is the current focus of mitigation strategies.

Windstorm*

Extreme winds are experienced in all of Oregon's eight regions. The most persistent high winds occur along the Oregon Coast and the Columbia River Gorge, so much so that these areas have special building code standards. All manufactured homes in Region 5 that are within 30 miles of the Columbia River, must meet special anchoring (i.e., tie-down) standards (Section 307: Wind Resistance). High winds in this area of Oregon are legendary. The Columbia Gorge is the most significant east-west gap in the mountains between California and Canada. It serves as a funnel for east and west winds, where direction depends solely on the pressure gradient. Once set in motion, the winds can attain speeds of 80 mph, halt truck traffic, and damage a variety of structures and facilities. The average wind speed at Hood River is 13 mph, not much

less than the notoriously windy Texas and Kansas plains whose wind speeds average 15 mph.

Winter Storms*

Within the State of Oregon, Region 5 communities are known for cold winter conditions. This is advantageous in at least one respect: in general, the region is prepared, and those visiting the region during the winter usually come prepared. However, there are occasions when preparation cannot meet the challenge.

Drifting, blowing snow has brought highway traffic to a standstill. Also, windy and icy conditions have closed Oregon's principal east-west transportation route, Interstate Highway 84, for hours. In these situations, travelers must seek accommodations --- sometimes in communities where lodging is very limited. And local residents also experience problems. During the winter, heat, food, and the care of livestock are everyday concerns. Access to farms and ranches can be extremely difficult and present a serious challenge to local emergency managers.

*Excerpted from the regional risk assessments for Region 5 of the *Oregon Natural Hazards Mitigation Plan*. This Plan can be found at the following website:
http://www.oregon.gov/LCD/HAZ/pages/NHMP.aspx#Oregon_Natural_Hazards_Mitigation_Plan.

Changing Climate and Morrow County

In 2010 Oregon completed the Oregon Climate Assessment Report. This 400-plus page report examines the potential social, physical and biological responses to an Oregon climate that may increase in average temperature from 0.2 to 1.0 degrees Fahrenheit per decade through the 21st century. As a global phenomenon, Morrow County will not escape some aspects of this change. Morrow County citizens can expect to experience warmer and drier summers more often with some effect on the potential for wildfires and drought. A key finding in the report states that:

We are already experiencing the impacts of climate change in Oregon. Given these observed and anticipated impacts, prudent measures to adapt should be taken now. Resilience needs to be built into human communities and fostered in natural communities to deal with the adverse impacts of climate change. The State of Oregon has undertaken a substantial adaptation planning effort drawing heavily from the conclusions regarding the state of climate science found in the report.

The full report can be obtained by calling Julie Cope at the Oregon Climate Change Research Institute at 541-737-5705 and is available for download at www.occri.net/ocar.

Natural Hazard Analysis Methodology

Conducting a hazard analysis is a useful first step in planning for mitigation, response, and recovery. Morrow County used the Hazard Analysis Methodology provided by Oregon Emergency Management (OEM.) This methodology involves the following steps, which are taken from the OEM Hazard Analysis Methodology document, updated May 2008. The matrix does not predict the occurrence of a particular hazard, but it does “quantify” the risk of one hazard compared with another. By doing this analysis, planning can first be focused where the risk is greatest. The matrix follows in this section after the methodology instructions, but the narratives, matrix rankings, and scores are all included in the Hazard Specific Annexes.

COMPLETING THE HAZARD ANALYSIS MATRIX

In this analysis, severity ratings are applied to the four categories of history, vulnerability, maximum threat (worst-case scenario), and probability based as follows:

- LOW = choose the most appropriate number between 1 to 3 points
- MEDIUM = choose the most appropriate number between 4 to 7 points
- HIGH = choose the most appropriate number between 8 to 10 points

Weight factors also apply to each of the four categories as shown below.

HISTORY (weight factor for category = 2)

History is the record of previous occurrences. Events to include in assessing history of a hazard in your jurisdiction are events for which the following types of activities were required:

- The EOC or alternate EOC was activated;
- Three or more EOP functions were implemented, e.g., alert & warning, evacuation, shelter, etc.;
- An extraordinary multi-jurisdictional response was required; and/or
- A "Local Emergency" was declared.

- LOW — score at 1 to 3 points based on... 0-1 event past 100 years
- MEDIUM — score at 4 to 7 points based on... 2-3 events past 100 years
- HIGH — score at 8 to 10 points based on... 4+ events past 100 years

VULNERABILITY (weight factor for category = 5)

Vulnerability is the percentage of population and property likely to be affected under an "average" occurrence of the hazard.

- LOW — score at 1 to 3 points based on... <1% affected
- MEDIUM — score at 4 to 7 points based on... 1-10% affected
- HIGH — score at 8 to 10 points based on... >10% affected

MAXIMUM THREAT (weight factor for category = 10)

Maximum threat is the highest percentage of population and property that could be impacted under a worst-case scenario.

- LOW — score at 1 to 3 points based on...<5% affected
- MEDIUM — score at 4 to 7 points based on... 5-25% affected
- HIGH — score at 8 to 10 points based on...>25% affected

PROBABILITY (weight factor for category = 7)

Probability is the likelihood of future occurrence within a specified period of time.

- LOW — score at 1 to 3 points based on... one incident likely within 75-100 years
- MEDIUM — score at 4 to 7 points based on... one incident likely within 35-75 years
- HIGH — score at 8 to 10 points based on... one incident likely within 10-35 years

HAZARD ANALYSIS MATRIX
Morrow County

Hazard	History (weight factor = 2)	Vulnerability (weight factor = 5)	Maximum Threat (weight factor = 10)	Probability (weight factor = 7)	Rank	Total Score
	Severity Rating / Score	Severity Rating / Score	Severity Rating / Score	Severity Rating / Score		
Drought	10 / 20	8 / 40	7 / 70	10 / 70	1	200
Earthquake	2 / 4	5 / 25	9 / 90	3 / 21	6	140
Flood	10 / 20	4 / 20	6 / 60	10 / 70	4	170
Landslide	2 / 4	3 / 15	3 / 30	8 / 56	8	105
Volcano	2 / 4	3 / 15	10 / 100	3 / 21	6	140
Wildfire	10 / 20	4 / 20	5 / 50	10 / 70	5	160
Windstorm	8 / 16	7 / 35	8 / 80	8 / 56	3	187
Winter Storm	3 / 6	8 / 40	9 / 90	8 / 56	2	192

Section 4

Mission, Goals and Action Items

Natural Hazard Mitigation Vision and Mission

The Steering Committee, with the support of the Planning Department and the guidance of Oregon Partnership for Disaster Resilience along with examples of goals from other Oregon counties, considered and developed Morrow County's vision and mission statements as well as the natural hazard mitigation plan goals.

Vision

To maximize Morrow County's resistance and resilience to natural hazards in both government and private sectors through preparedness and mitigation.

Mission

To identify and reduce risk, work to prevent loss and protect life, property and the environment from natural hazard events through coordination and cooperation among public and private partners.

Mitigation Plan Goals

The basis for Morrow County's goals concerning mitigation of natural hazard risks lies in the Comprehensive Plan, which directs the County to protect life and property from natural disasters and hazards. This goal exists in harmony with many other County planning programs from the Transportation System Plan to the ordinances, plans and policies of the Health Department, Planning Department, Public Works Department and other entities such as Morrow County Emergency Management. The Steering Committee, with the support of the Planning Department and guidance of the Oregon State's Hazard Mitigation Plan Goals along with examples of goals from other Oregon counties, considered and developed - in no particular priority order - the following natural hazard mitigation plan goals:

Goal 1: Protection of Property:

- Lessen impact from natural disaster on individual properties, businesses and public facilities by increasing awareness at the individual level and encouraging activities that can prevent damage and loss of life from natural hazards;
- Improve hazard assessment information to make recommendations for discouraging new development and encouraging preventative measures for existing development in areas vulnerable to natural hazards.

Goal 2: Education and Outreach:

- Further the public's awareness and understanding of natural hazards and potential risk, including economic vulnerability and mitigation efforts;
- Provide information on tools, partnership opportunities and funding resources to assist in implementing mitigation activities.

Goal 3: Preventative:

- Reduce the threat of loss of life and property from natural hazards by incorporating information on known hazards and providing incentives to make hazard mitigation planning a priority in land use policies and decisions, including plan implementation.

Goal 4: Partnership and Coordination:

- Identify mitigation or risk reduction measures that address multiple areas (i.e. environment, transportation, telecommunications);
- Coordinate public/private sector participation in planning and implementing mitigation projects throughout the County;
- Seek funding and resource partnerships for future mitigation efforts; and
- Strengthen communication and coordinate participation among and within public agencies, citizens, non-profit organizations, business, and industry.

Goal 5: Structural Projects:

- When applicable, utilize structural mitigation activities to minimize risks associated with natural hazards.

Goal 6: Natural Resources:

- Preserve and rehabilitate and enhance natural systems to serve natural hazard mitigation functions (i.e. floodplains, wetlands, watersheds and urban interface areas; and
- Balance watershed planning, natural resource management, and land use planning with natural hazard mitigation to protect life, property, and the environment.

Goal 7: Emergency Services:

- Minimize life safety issues by promoting, strengthening and coordinating emergency response plans; and
- Coordinate and integrate natural hazard mitigation activities, where appropriate, with emergency operations plans and procedures.

The plan goals help guide the direction of future activities aimed at reducing risk and

preventing loss from natural hazards. The goals listed above serve as checkpoints as agencies and organizations begin implementing mitigation action items.

Mitigation Plan Action Items

Action items are detailed recommendations for activities that local departments, citizens and others could engage in to reduce natural hazard risk. Short and long-term action items identified through the planning process are an important part of the mitigation plan and they may address both multi-hazard and hazard specific issues.

The Steering Committee, each jurisdiction, and Planning Department staff evaluated a broad set of mitigation action items for the Plan's identified natural hazards that could impact a city jurisdiction and the County. Members of the Planning Department Staff, Steering Committee, Public Works Department and cities identified the action items during the Steering Committee meetings, and city workshops.

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. The action item worksheets can assist the community to pre-package potential projects for grant funding. The worksheet components are described below. These action item worksheets are located at the end of this section following the Action Plan Matrix, which displays all the plan's action items.

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.

City and Town Action Items:

The City Annexes within this Plan identify and analyze specific mitigation actions and projects for each jurisdiction. In each jurisdiction, a position, person, office, department, or agency responsible for implementing and administering each action is not always identified or even available because many of the staff work part time. This is simply because the city and town staffs are mostly limited to two or three people sometimes with no separate departments. Projects and actions will be accomplished by the limited staff and contact regarding specific projects must be referred to the city manager or town recorder.

Ideas for Implementation:

The ideas for implementation offer a transition from theory to practice and serve as a starting point for this plan. The action items may include a range of problems, and

ideas that when implemented, will reduce loss from hazard events in the County. Within the Plan FEMA requires the identification of existing programs that might be used to implement these action items. Morrow County currently addresses statewide planning goals and legislative requirements through its Comprehensive Land Use Plan and mandated standards in the zoning and building codes. To the extent possible, Morrow County and the participating jurisdictions will work to incorporate the recommended mitigation action items into existing programs and procedures. This component of the action item is dynamic as some ideas may not be feasible and new ideas can be added during the plan maintenance process. 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.

Original and Current Mitigation Plan Action Items

This Plan contains action items that were included as part of the original 2006 Plan and new action items identified by the Steering Committee in the 2014 update. In order to provide continuity, the older action items will be evaluated and attached to a Mitigation Action Progress Report Form. Some of these original action items have been forwarded for continued mitigation work and some retired as completed or canceled. Current action items will have 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. The action item worksheets can assist the community in pre-packaging potential projects for grant funding. The action item worksheets are located in Appendix F. The city action items are also located in the specific city annexes.

Plan Success Stories

In 2006, Lexington identified a significant vulnerability with the location of its Town Hall and fire department. It was situated directly in the Willow Creek flood zone. An Action Item to relocate the two obvious critical facilities for the Town was submitted within Lexington's portion of the Plan and the vulnerability was documented. After FEMA approved the Plan, the Town moved quickly to procure funding for relocation. This was accomplished and the Town and the County is proud of what has been accomplished through the disaster mitigation process. Besides this tremendous success, there are other, also important successes. The City of Irrigon has successfully installed backup power for its sewage lift station and also its water supply for the City. The County has improved drainage in flood-prone roads and highways, and Lone has improved flooding issues in their City as well.

Action Plan Matrix for the Action Items

The Action Plan matrix is a table that portrays the overall action plan framework for the whole County and identifies linkages between the plan goals, and actions. The matrix documents a description of the action, the status of the action, the priority, and the associated Plan goals.

The STAPLE/E hazard evaluation methodology was utilized to prioritize the Action Items. The STAPLE/E approach can evaluate mitigation activities quickly by the steering committee in a systematic fashion in which Social, Technical, Administrative, Political, Legal, Economic, and Environmental (STAPLE/E) constraints are considered. The second chapter in FEMA's How-To Guide "Developing the Mitigation Plan - Identifying Mitigation Actions and Implementation Strategies" as well as the "State of Oregon's Local Natural Hazard Mitigation Plan: An Evaluation Process" outline some specific considerations in analyzing each aspect. The prioritization employs a "high", "medium" and "low" ranking system. When a project has a fairly good likelihood of being implemented in that funding and staff are available and social considerations are favorable, the overall project rank would most likely be high. When funding and staff is generally not available or the political, legal, economic and other social impacts are high, the overall priority rank would most likely be low.

Morrow County Natural Hazard Mitigation Plan Action Items

City of Boardman		Status	Priority	Applicable Goals
B06-01	Provide portable power backup for the sewer system in Boardman	Project Delayed	HIGH	5
B06-02	Provide backup generator for water collector #2 in Boardman	Project Delayed	HIGH	5
B14-03	Language Barriers	New Project, Ongoing	HIGH	1, 2
City of Heppner		Status		Applicable Goals
H06-01	Pending public awareness campaigns about natural hazard mitigation	Ongoing	HIGH	2
H06-02	Recruitment and training of Red Cross volunteers	Project Completed/canceled	N/A	2, 7
H06-03	Improve emergency communications systems in the Willow Creek Valley	Ongoing	HIGH	7
City of Ione		Status		Applicable Goals
IN06-01	Education/Training of FEMA requirements	Ongoing	HIGH	2, 4
IN06-02	Rain event/Flood control	Ongoing	HIGH	1, 5
IN14-03	Increase flow under Green St off Hwy 74	new, pending	HIGH	5
IN14-04	Prevent run-off from pooling behind businesses on Main Street	new, pending	HIGH	5
IN14-05	Continue to Meet Flood Plain Management requirements	new, pending	HIGH	3
City of Irrigon		Status		Applicable Goals
IR06-01	Provide backup power for sewage system lift stations in Irrigon	Completed	N/A	5
IR06-02	Provide emergency backup for the City water system in Irrigon	Completed	N/A	5
IR06-03	Lessen wildfire and drought impacts in Irrigon	Delayed	MED	5
R14-04	Provide emergency backup for wells #1	Pending	MED	5

IR14-05	Provide emergency/auxiliary backup power for Lift Station #2	Pending	MED	5
IR14-06	Provide emergency backup power for Community Warming Station #3	Pending	MED	5
IR14-07	Provide emergency information dissemination broadcasting	New, ongoing	MED	5
Town of Lexington		Status		Applicable Goals
L06-01	Alarm for water pump malfunction and backup water supply	Project on track to complete 12/2014	HIGH	5
L06-02	Creek channels cleared/maintain flood dike	Project on Schedule	MED	5
L06-03	Relocate town hall / fire department	Completed	N/A	5
L06-04	Obtain emergency generators	Project on Schedule	HIGH	5
L06-05	Develop emergency notification system	Project on Schedule	HIGH	3
L06-06	Obtain backup water well	Project Delayed		5
L06-07	Obtain technical assistance in order to update the Hazards section of Town Comprehensive Plan and Zoning Ordinance	Project Delayed	HIGH	3
L06-08	Improve drainage on C Street	Project Delayed	HIGH	5
L06-09	Improve drainage on Town streets	Project Delayed	MED	5
Morrow County		Status		Applicable Goals
MC06-01	Improve emergency communications systems in the Willow Creek Valley	Completed	n/a	7
MC06-02	Public education for property owners and recreationists in fire-prone areas	Ongoing	HIGH	2
MC06-03	Backup power for critical communication facilities in the event of a wind/winter storm	Pending	HIGH	5
MC06-04	Encourage Red Cross Training	Ongoing	MED	2, 7
MC06-05	Landslide risk evaluation	Project Completed	N/A	2, 3

MC06-06	Discuss necessary ordinance changes based on updated Comprehensive Plan and make changes deemed to be necessary.	Cancelled. Project covered in separate action items. See MC14-35, 37, and 38	N/A	3
MC06-07	Outreach and information for the Hispanic population	Ongoing	MEDIUM	2
MC06-08	WEID -Install automated shut down at head gates and pump stations	Pending	HIGH	4, 5
MC06-09	Continuing public awareness campaigns about natural hazard mitigation	Ongoing	HIGH	2
MC06-10	Evaluation of drought and winter/windstorm risk/vulnerability/probability	Completed	N/A	4, 2
MC06-11	Update of Morrow County Comprehensive Plan and Zoning Ordinance	Cancelled	N/A	3, 4
MC06-12	Miller/Cuts forth Road #747 and #737	Completed: larger culvert installed	N/A	5
MC06-13	Road improvements Nichols Lane Road #620	Pending	MED	5
MC06-14	Road improvements Piper Canyon #647	Pending	MED	5
MC06-15	Road improvements Turner Land #504	Pending	MED	5
MC06-16	Road improvements Dee Cox Road #723	Completed; ditches cleaned out	N/A	5
MC06-17	Road improvements Black Horse Road also paved portion some damage. Needs patched and graded on gravel. #719	Completed	N/A	5
MC06-18	Road improvements Shobe Canyon #713	Completed; ditches cleaned out	N/A	5
MC06-18	Road improvements Stock Drive Lane #614	Pending	MRD	5
MC06-19	Road improvements Perlberg #675	Pending	MED	5
MC06-20	Road improvements Clarks Canyon washed out spots #966	Pending	MED	5
MC06-21	Road Improvements Fuller Canyon #612	Pending	MED	5
MC06-22	Road improvements Meadow Brook Road #643	Pending	MED	5

MC06-23	Road Improvements Bert Peck Lane #616	Pending	MED	5
MC06-24	Road improvements Lexington / Cemetery Road #645	Completed	N/A	5
MC06-25	Road improvements Strawberry Lane #588	Completed	N/A	5
MC06-26	Road improvements Lloyd Road #924	Pending	MED	5
MC06-27	Road improvements Johnson Grade #526	Pending	MED	5
MC06-28	Road improvements Morgan East #537	Pending	MED	5
MC06-29	Road Improvements Lindstrom Lane#538	Pending	MED	5
MC06-30	Road Improvements Wells Spring wash out	Pending	MED	5
MC06-31	Road Improvements Immigrant - Mud Build Up #550	Pending	MED	5
MC06-32	Road Improvements Alpine Lane #702	Some work done, patched ditch work	MED	5
MC14-33	Identify the proper fire district that will protect against fires in the Umatilla Chemical Depot District.	new, pending	MEDIUM	1
MC14-34	Maintenance of fire breaks on US Navy-owned property	new, pending	MEDIUM	1
MC14-35	Update fire siting standards for siting development in Forest use Zones	new, pending	HIGH	3
MC14-36	Consideration of broadening of the HNMP to include an All Hazards plan	new, pending	HIGH	3
MC14-37	Update the Comprehensive plan Natural Hazards Element	COMPLETED	N/A	6
MC14-38	Landslide hazard Comprehensive Plan update and land use planning	new, pending	MEDIUM	3
MC14-39	Fire response in Army Corp property next to the Columbia River - Who does it?	new, pending	HIGH	1
MC14-40	Evacuation routes during wildfires in Blake Ranch and other S. Morrow County residential areas in the FU Zone	new, pending	HIGH	1
MC14-41	Compliance with the National Flood Insurance Program	new, ongoing	HIGH	1

Section 5

Plan Implementation and Maintenance

The section details the formal process that will ensure that Morrow County Natural Hazards Mitigation Plan remains an active and relevant document. The plan implementation and maintenance process includes a schedule for monitoring and evaluating the Plan semi-annually as well as producing an updated plan every five years. All jurisdictions represented in this Plan will update their sections on the same schedule.

Implementing the Plan

After the Plan is locally reviewed and deemed complete the Morrow County Planning Department will be responsible for submitting it to the State Hazard Mitigation Officer at the state Office of Emergency Management, who will review the Plan and submit it to the Federal Emergency Management Agency (FEMA-Region X) for review. This review will address the federal criteria outlined in FEMA Interim Final Rule 44 CFR Part 201. Upon acceptance by FEMA adoption via resolution will be done by the Morrow County Court, the Cities of Boardman, Irrigon, Lone, Heppner, and the Town of Lexington. At that point the County will gain eligibility for the Pre-Disaster Mitigation Grant Program, the Hazard Mitigation Grant Program funds, and Flood Mitigation Assistance program funds.

Convener

Once the Plan has been reviewed and approved by FEMA the Planning Department will maintain the Plan on the Planning Department's website and will take on the following roles and responsibilities:

- Be responsible for the implementation and maintenance of the Plan;
- Reach out to private and public entities for involvement;
- Document outcomes of Committee meetings;
- Serve as a communication conduit between the Steering Committee, County Departments and key plan stakeholders;
- Identify funding sources for natural hazard mitigation projects; and
- Utilize the Risk Assessment as a tool for prioritizing proposed natural hazard risk reduction projects.

Coordinating Body

The Steering Committee will serve as the coordinating body for the mitigation plan. Roles and responsibilities of the Steering Committee include:

- Serving as the local evaluation committee for funding programs such as Pre-Disaster Mitigation Grant Program, the Hazard Mitigation Grant Program funds, and Flood Mitigation Assistance program funds;
- Evaluating and updating the Natural Hazards Mitigation Plan following a disaster;
- Documenting successes and lessons learned;
- Prioritizing and recommending funding for natural hazard risk reduction projects;
- Evaluating and updating the Natural Hazards Mitigation Plan in accordance with the prescribed maintenance schedule; and
- Developing and coordinating ad hoc and/or standing subcommittees as needed.

Members

The following organizations were represented and served on the Steering Committee during the development of the Morrow County Natural Hazards Mitigation Plan:

- Don Kennedy, Chair, Local Emergency Planning Committee;
- Larry Burns, Irrigon Rural Fire Protection District;
- Steve Myren, Morrow County Emergency Management Lead;
- Shelly Wight, Morrow County Public Health/Emergency Preparedness;
- Sandi Putman, Morrow County Public Works;
- Steve Rhea, Heppner Rural Fire Protection District;
- Janet Greenup, Morrow Soil and Water Conservation District;
- Karen Pettigrew, City of Boardman;
- Kim Cutsforth, City of Heppner;
- Linda LaRue, City of Lone;
- Aaron Palmquist, City of Irrigon;
- Jean Brazell / Kevin McCabe, Town of Lexington

To make the coordination and review of Morrow County's Hazard Mitigation Plan as broad and useful as possible, the Steering Committee will engage additional stakeholders and other relevant hazard mitigation organizations and agencies to implement the identified action items as necessary. At meetings, held twice each year, the Steering Committee will review the Plan and work with County staff to implement Actions Items or make suggestions to update the Plan.

Implementation through Existing Programs

The Natural Hazard Mitigation Plan includes a range of action items that, when implemented, will reduce loss from hazard events in the County. Within the plan, FEMA requires the identification of existing programs that might be used to implement these action items. Morrow County and its participating jurisdictions address statewide planning goals and legislative requirements through Comprehensive Land Use Plans, Transportation System Plans, Zoning and Subdivision Ordinances, and Building Codes. To the extent possible, Morrow County and the participating jurisdictions will work to incorporate the recommended mitigation action items into existing programs and procedures.

Many of the Natural Hazards Mitigation Plan's recommendations are consistent with the goals and objectives of the County's and cities' existing plans and policies. The city jurisdictions are small and have very limited staff. Regular updating of land use and supporting documents to support the Natural Hazard Mitigation Plan will be done if and when funding and staffing allow it. Where possible, Morrow County and cities will implement the Natural Hazards Mitigation Plan's recommended actions through existing plans and policies. Plans and policies already in existence have support from local residents, businesses, and policy makers and many of the County's land-use, comprehensive, and strategic plans get updated periodically when staff and funds are available, and can adapt to changing conditions and needs. For example, the County has finished the process of updating the Comprehensive Plan's Natural Hazard Element based on updated information within the County's Natural Hazard Mitigation Plan. Implementing the Natural Hazards Mitigation Plan's action items through such plans and policies increases their likelihood of being supported and implemented. The County will continue the process to update the Natural Hazards element of the Comprehensive Plan and look to amend portions of the Zoning or Subdivision Ordinances when deemed necessary. This has been an action item in the current Plan and will continue to be implemented as resources in the County allow.

Plan Maintenance

Although over the last 7 years the County did not conduct maintenance procedures outlined in the Plan, it is recognized that Plan maintenance is a critical component of the natural hazard mitigation plan. Proper maintenance of the plan will ensure that this plan will maximize Morrow County's efforts to reduce the risks posed by natural hazards. This section was developed by the University of Oregon's Oregon Natural Hazards Workgroup and includes a process to ensure that a regular review and update of the plan occurs. The steering committee and local staff will be responsible for implementing this process in addition to maintaining and updating the plan through a series of meetings outlined in the maintenance schedule below.

Semi-Annual Meetings

The Committee will meet on a semi-annual basis, once in the Spring and once in the Fall, to:

- Reach out to the public for input into Plan maintenance and involvement;
- Review existing action items to determine appropriateness for funding;
- Identify issues that may not have been identified when the plan was developed;
- Prioritize potential mitigation projects using the methodology described below;
- Document successes and lessons learned;
- Review updates of the Risk Assessment data and findings.

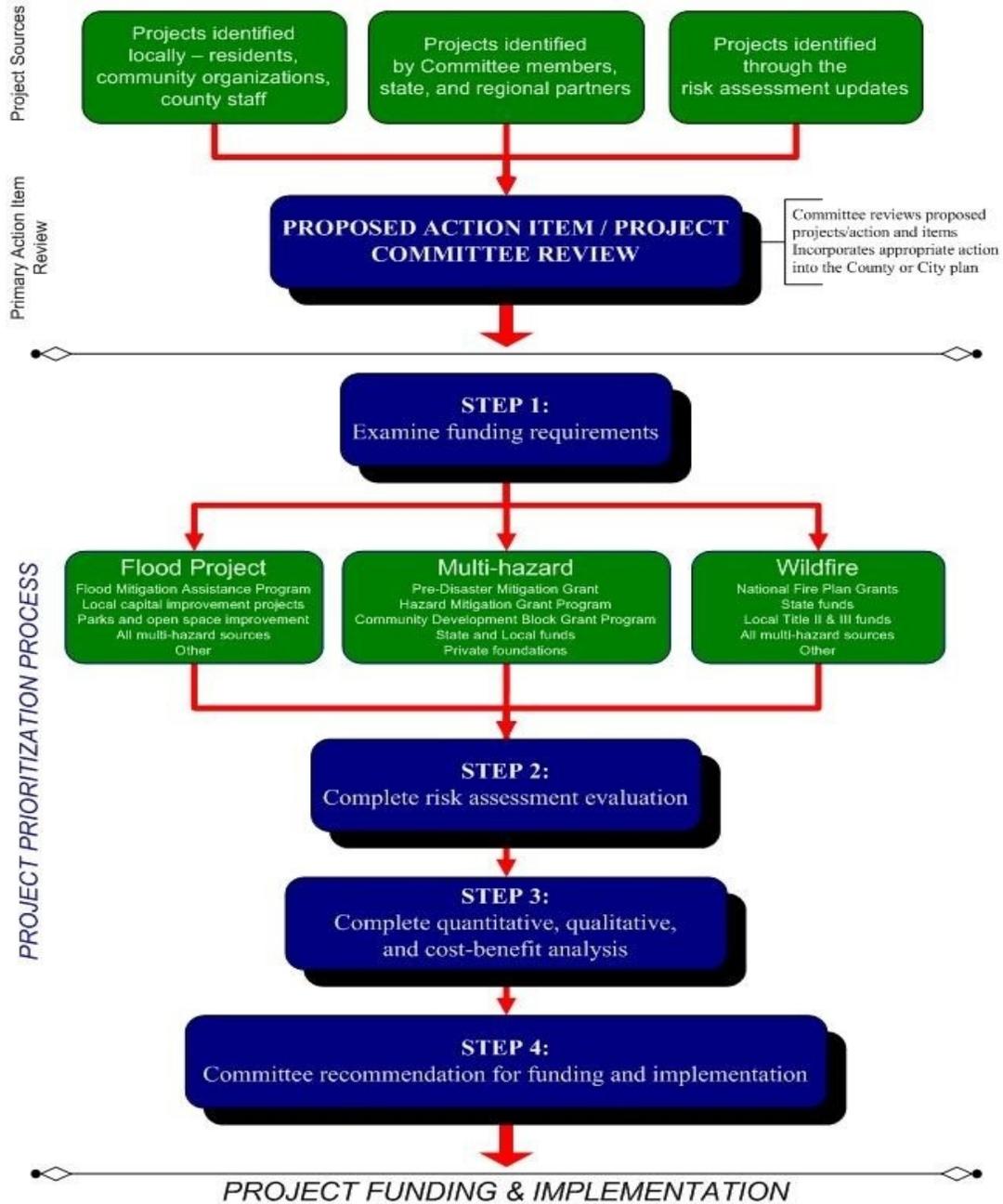
The plan's format allows the County to review and update sections when new data becomes available. New data can be easily incorporated, resulting in a natural hazards mitigation plan that remains current and relevant to Morrow County. The convener will be responsible for documenting the outcome of the semi-annual meetings. The Plan will be revised to reflect progress on local mitigation efforts. The process the Committee will use to prioritize mitigation projects is detailed in the section below.

Project Prioritization Process

The Disaster Mitigation Act of 2000 (via the Pre-Disaster Mitigation Program) requires that Morrow County identify a process for prioritizing potential actions. Potential mitigation activities will often come from a variety of sources; therefore, the project prioritization process needs to be flexible. Projects may be identified by committee members, local government staff, other planning documents, or the risk assessment.

Depending on the potential project's intent and implementation methods, several funding sources may be appropriate. Examples of mitigation funding sources include, but are not limited to: FEMA's Pre-Disaster Mitigation competitive grant program (PDM), Flood Mitigation Assistance (FMA) program, National Fire Plan (NFP), Title II funds, Title III funds, Community Development Block Grants (CDBG), local general funds, and private foundations. Some of these examples are used in the figure 5.1 on the next page to illustrate the project development and prioritization process.

Figure 5.1: Project Prioritization Process Overview



Source: Community Service Center's Oregon Natural Hazards Workgroup at the University of Oregon, 2006

Step 1: Examine funding requirements

The Steering Committee will identify how best to implement individual actions into the appropriate existing plan, policy, or program. The committee will examine the selected funding stream's requirements 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 2: Complete risk assessment evaluation

The second step in prioritizing the plan's action items is to examine which hazards they are associated with and where these hazards rank in terms of community risk. 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, and whether community assets are at risk. The committee will additionally consider whether the selected actions mitigate hazards that are likely to occur in the future, or are likely to result in severe/catastrophic damages.

Step3: Committee recommendation

Based on the steps above, the committee will recommend whether or not the mitigation activity should be moved forward. If the committee decides to move forward with the action, the coordinating organization designated for the activity will be responsible for taking further action and documenting success upon project completion. The Committee will convene a meeting to review the issues surrounding grant applications and shared knowledge and or resources. This process will afford greater coordination and less competition for limited funds.

Step 4: Complete a quantitative and qualitative assessment and economic analysis

The fourth step is to identify the costs and benefits associated with the selected natural hazard mitigation strategies, measures or projects. Two categories of analysis that are used in this step are: (1) benefit/cost analysis, and (2) cost-effectiveness analysis. Conducting benefit/cost analysis for a mitigation activity assists 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 requires federal funding for a structural project, the Committee will use a Federal Emergency Management Agency-approved cost-benefit analysis tool to evaluate the appropriateness of the activity. A project must have a benefit/cost ratio of greater than one in order to be eligible for FEMA grant funding.

For non-federally funded or nonstructural projects, a qualitative assessment will be completed to determine the project's cost effectiveness. The committee will use a multivariable assessment technique called STAPLE/E to prioritize these actions. STAPLE/E stands for Social, Technical, Administrative, Political, Legal, Economic, and Environmental. Assessing projects based upon these seven variable can help define a project's qualitative cost effectiveness. The STAPLE/E technique has been tailored for use in natural hazard action item prioritization by the Partnership for Disaster Resilience at the University of Oregon's Community Service Center. See Volume II, Appendix D: Economic Analysis for a description of the STAPLE/E evaluation methodology.

Continued Public Involvement and Participation

The participating jurisdictions are dedicated to involving the public directly in the continual reshaping and updating of the Morrow County Natural Hazards Mitigation Plan. Although members of the Steering Committee represent the public to some extent, the public will also have the opportunity to continue to provide feedback about the Plan. Public participation was incorporated into every stage of the Plan update process. All meetings were open to the public. There were small numbers from the public in attendance, but their input was appreciated and valued.

In addition to the involvement activities listed in this Plan, the County's Natural Hazard Mitigation Plan is to be archived and posted on the Partnership website via the University of Oregon Libraries' Scholar's Bank digital Archive.

Five-Year Review of Plan

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?
- Document successes and lessons learned during the last five years.
- 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 committee determine what components of the mitigation plan need updating. The Committee will be responsible for updating any deficiencies found in the plan based on the questions above.

Continued Public Involvement & Participation

Morrow County is dedicated to involving the public directly in the continual reshaping and updating of the Natural Hazard Mitigation Plan. Although members of the Steering Committee represent the public to some extent, the public will also have the opportunity to provide feedback about the Plan.

During plan development, public participation was incorporated into every stage of the plan development process, which consisted of 3 main components:

- Steering Committee - comprised of representatives from the County and cities within Morrow County;
- Stakeholder Forum - comprised of Morrow County citizens and corporate and agency stakeholders who identified common, as well as specific concerns, and who could discuss priorities and potential mitigation actions;
- Stakeholder Interviews to garner specialized knowledge of individuals working with populations or areas at risk from the listed natural hazards.

When the initial hazard mitigation planning was accomplished the Steering Committee's role became that of coordinating the implementation of plan Action Items and undertaking the formal plan review process. The Stakeholder Forum was not formally utilized in the update but stakeholders in the Natural Hazard Mitigation planning process were involved in answering questions and resolving potential problems. The County will hold semi-annual review meetings and will conduct a 5-year comprehensive review. The Committee membership will be revised as necessary by the County Court in coordination with Morrow County Planning Department, Emergency Management, and the Public Works Department to assure adequate representation of citizens, cities, stakeholders and other involved entities.

Morrow County is dedicated to continuing to educate the public about hazard mitigation planning and to involving the public and encouraging feedback in the Plan and in the semi-annual review and updates of the Natural Hazard Mitigation Plan and will:

- Post the NHMP on the State hazard mitigation websites;
- Post the Plan on the Planning page of the Morrow County website;
- Keep copies of the Plan at all of the appropriate agencies in the County and cities.

The plan also includes the address and the phone number of the designee responsible for keeping track of public comments on the Plan. Public comments should be submitted to:

Morrow County Planning Department PO Box 40 Irrigon OR 97844
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During the semi-annual plan evaluation or when deemed necessary by the Steering Committee, public meetings will be called. The meetings will provide the public a forum for which they can express their concerns, opinions, or ideas about the Plan. A natural hazard mitigation designee will be responsible for using available resources to publicize public meetings and maintain public involvement through available informational means such as the County web page, local newspapers, flyers distributed through the Red Cross and other public education/information campaigns such as utility bill flyers and public notices.

Drought Summary and Risk Assessment

Drought Summary

Drought Impacts in Morrow County

Drought is a normal, recurrent feature of the climate in eastern Oregon. The environment and economy of Morrow County is vulnerable to the impact drought can have when there is a deficiency of precipitation over an extended period of time, usually a season or more. Also, the impacts of drought are often exacerbated by the demand placed on the water supply in the region's aquifers, high temperatures, high winds and low humidity. These are all conditions that exist in Morrow County during the summer months. Drought in Morrow County has a serious effect on the local agricultural economy and the associated businesses that depend on the success of the local economy. During times of low regional snowpack in the mountains the resulting restrictions on water wells for irrigation cause losses to farmers who cannot irrigate their crops as usual, as well as for dryland wheat farmers who are coping with lack of local rainfall.

Drought History and Location in Morrow County:

Morrow County has had a State of Drought Emergency and was declared a Disaster Area by the U.S. Department of Agriculture in September 2001 and experienced another Drought Emergency in April 2005 and in August 2013. According to the National Climatic Data Center of the U.S. Department of Commerce, the northeast corner of Oregon has been experiencing persistent drought conditions since 1999. Precipitation in Oregon since October 2000 is only 76 percent of the 60-month normal. The 60-month period ending September 2005 was among the driest such October - September 60 month periods in the last 111 years. There was no recorded precipitation in the region in August and September, which was unprecedented in 100 years of record.

To assess the severity of the drought, tree ring data from a 275-year tree-ring reconstruction (1705-1979) of water year precipitation was consulted. The most significant feature in the last 100 years is a severe and extended drought in the 1930s. The precipitation was below normal for 10 years in a row (1928-1937). The 1999-2005 drought is similar to the 1930s drought in terms of duration and severity. The worst drought years of 2001 and 1977 were probably exceeded in severity by only a few years in the two preceding centuries.

The Long-Term Drought Indicator generated by the Climate Prediction Center for the U.S. Department of Commerce has seasonally variable data based on the

ever-changing current conditions but the Objective Long-Term Drought Indicator shows Morrow County as in "Moderate Drought" in December 2005 and "Abnormally Dry" in June 2006. During the period of 2006 - 2013, the Palmer Drought Index shows mostly mid-range precipitation. There were periods of moderate drought not lasting more than 4 months at a time and periods of moderately moist conditions, especially in 2011.

Regions of Drought Hazard:

Although the Climate Prediction Center gives one set of drought data for the region, drought has variable risks across the County:

- South - The conifer forests of southern Morrow County suffer in drought conditions and become more vulnerable to pests and wildfire. Drought affects the recreation economy in that summertime visitors who come to the Off-Road Vehicle Park and other recreation facilities are restricted from full use of the facility due to fire bans.
- North - drought in this region of Morrow County has a clearly detrimental effect on agriculture, which must adjust to low water tables and irrigation restrictions or rely on government support programs and crop insurance. Ranges and pastures become stressed and often over grazed in drought conditions. The usual watering areas may disappear or be negatively affected. Wildfire risks are elevated and reservoir levels and aquifers diminish. During drought conditions the wildfire risk becomes elevated in the agricultural lands set aside as conservation reserve areas, extensive pastures and ranges, undeveloped shrub-steppe, the Boardman Bombing Range and on the former Army Depot location.

Vulnerability and Probability Assessment of Drought:

The Oregon Emergency Management has not assessed the vulnerability and probability of drought in Morrow and Umatilla Counties. Given that Morrow County as experienced drought as part of the greater region and participated in historical droughts and the drought emergencies, the probability exists of one incident of drought within a 10 to 35 year period (assuming similarity to all of the counties surrounding Morrow County). This probability represents a high likelihood of a future major drought emergency or disaster to occur in Morrow County. The vulnerability to the population of Morrow County's assets to be affected by a major drought emergency or disaster is moderate (1 - 10 percent affected).

The State of Oregon deals with drought response in the Drought Annex to the State Emergency Operations Plan. Local drought issues and are handled through the local Farm Service Agency (FSA) office.

Location of Hazard:	Extent of Hazard at the Location:	
<ul style="list-style-type: none"> • Morrow County 	<ul style="list-style-type: none"> • Agricultural economy and associated businesses 	
History of Drought in Morrow County:		
<ul style="list-style-type: none"> • Extensive Regional Drought 1999 - 2006 • State Drought Emergency Declaration - Executive Order 92-21 September 3, 1992 • State Drought Emergency Declaration - Executive Order 01-23 September 17, 2001 • State Drought Emergency Declaration - Executive Order 03-07 July 16, 2003 • State Drought Emergency Due to Drought and Low Water Conditions - Executive Order 04-03 March 31, 2004 • State Drought Emergency Declaration - Executive Order 05-05 April 7, 2005 • State Drought Emergency Declaration - Executive Order 13-10 August 31, 2013 • State Drought Emergency Declaration - Executive Order 15-05 May 2015 		
Drought in the News in Morrow County:		
<ul style="list-style-type: none"> • "Census: local farmers struggling: East Oregonian June 30, 2004 • "Morrow County drought hits man, beast alike" East Oregonian June 27, 2006 • "Drought declared for Umatilla, Morrow Counties" East Oregonian June 27, 2006 • "Parched soil, low crop yields nothing new in Morrow County" East Oregonian June 27, 2006 • "Funding available to help Oregon landowners mitigate effects of drought" Heppner Gazette Times June 2, 2015 		
Community's Vulnerability to a Future Hazard Event: NHMP Risk Assessment Scores:		
Rank = 1	Probability = High	Vulnerability = High
Previous Mitigation Efforts:		
<ul style="list-style-type: none"> • Conservation Reserve Program (CRP) can provide for emergency grazing opportunities during drought conditions. • Mitigation suggestions for farmers provided through the local U.S. Department of Agriculture Farm Service Agency (FSA.) • Funding through the USDA Natural Resources Conservation Service for landowners in declared droughts (2015) 		

Changing Climate and Drought Impacts on Agriculture

In 2010 Oregon completed the Oregon Climate Assessment Report. This 400-plus page report examines the potential social, physical and biological responses to an Oregon climate that may increase in average temperature from 0.2 to 1.0 degrees Fahrenheit per decade through the 21st century. As a global phenomenon, Morrow County will not escape some aspects of this change. Morrow County citizens can expect to experience warmer and drier summers more often with some stress on water for irrigation purposes. Two key findings in the report state that;

- Summer water supply will decrease as a result of reduced snowpack and summer precipitation. The presence of a winter snowpack is crucial for summertime water supply in much of Oregon. A viable water supply is needed for irrigation, residential and commercial water use, fish propagation and survival and overall eco-system health. Snowpack in the Pacific Northwest is particularly sensitive to warming. By mid-century, Cascade snowpacks are projected to be less than half of what they were in the 20th century with lower elevation snowpacks being the most vulnerable. Water demands are projected to increase through the 21st century, particularly in urban areas, posing an additional stressor to water availability.
- Availability, quality and cost of water will likely be the most limiting factor for agricultural production systems under a warmer climate. Many Oregon irrigation systems are fed by snowmelt and stored in reservoirs. With an increase in temperature irrigation demands will be greater. There may be new opportunities for agriculture in a warmer climate: the growing season may be extended and yields may be more plentiful.....

Earthquake Summary and Risk Assessment

Earthquake Summary

The earthquake hazard in Morrow County has been evaluated by the State and the USGS. There are no identified fault lines lying in the County but residents have felt shaking from nearby fault activity and new fault lines have been discovered not far away to the north in Washington State. Still, a major earthquake hazard event has been determined to have a small likelihood of occurrence in Morrow County.

Earthquake History and Location in Morrow County

The Pacific Northwest Seismograph Network records roughly 1,000 earthquakes per year in Washington and Oregon. Between one and two dozen of these cause enough ground shaking to be felt by residents. Most are located in the western side of the Cascade Mountains. This part of Oregon has experienced four historic earthquakes of significance that were centered in the eastern Oregon region: the 1893 Umatilla earthquake, the 1936 Milton-Freewater earthquake, the 1951 Hermiston earthquake, and the 1976 Deschutes Valley earthquake. All were shallow crustal earthquakes. There are also identified faults in the region that have been active in the last 20,000 years. The region has also been shaken historically by crustal and intraplate earthquakes and prehistorically by subduction zone earthquakes centered outside the area.

Impacts, Vulnerability and Probability Assessment of Risk of Earthquake

According to the Oregon Department of Geology and Mineral Industries (DOGAMI) publication "Earthquake damage in Oregon: Preliminary Estimates of Future Earthquake Losses," Morrow County could have significant economic losses due to damage to buildings, communication systems, highways and airports. The study in the publication called the "500 year return interval" used faults across Oregon and projected an average earthquake on each one, each with a 10% chance of producing an earthquake in the next 50 years. Every county in Oregon is at risk of earthquake damage in this scenario. The study estimates that Morrow County will have relatively few losses due to injuries, deaths and few short-term shelter needs. Nevertheless, damages to structures would be high in terms of dollar losses. The study estimates that the economic losses for buildings would be ten million dollars, losses to highways \$550,000, airports \$392,000, and communication systems \$46,000 (1999 dollars). Additionally, the study does not take unreinforced masonry buildings into consideration, which are typically older brick buildings often concentrated in an older downtown area such as Heppner. The likelihood of a huge earthquake in Morrow County is small, but the shaking we do experience from time to time has the potential to cause extensive

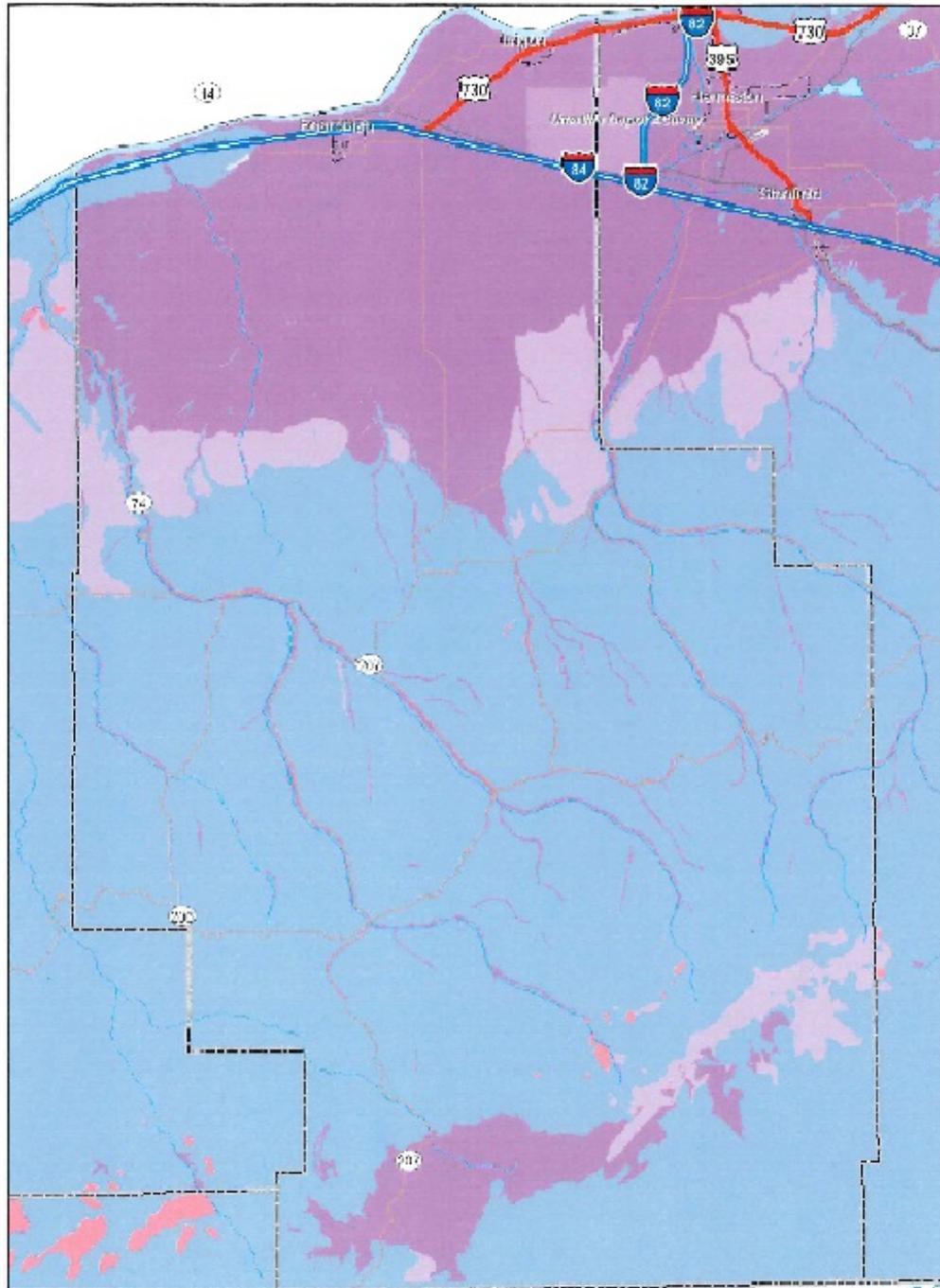
damage. Emergency managers in Morrow County have assessed the probability of earthquake to be low, that is one incident within a 75 to 100 year period. Vulnerability has been assessed as "high." This means that in the event of an earthquake, more than 10 percent of the population or region assets would likely be affected.

As shown on the Ground Shake Amplification map provided by DOGAMI, the peak ground acceleration (shaking) tends to be highest in the northern portion of the County where the soil types are typically alluvial and will move more easily in an earthquake situation. This indicates that the northern portion of the County and the Cities of Boardman and Irrigon will likely experience the most shaking and, therefore, the most structural damage to buildings.

Location of Hazard:	Extent of Hazard at the Location:
<ul style="list-style-type: none"> • Morrow County 	<ul style="list-style-type: none"> • County-wide. The risk is slightly higher in the northern portion of the County
History of Earthquake Occurrences in Morrow County Region:	
<ul style="list-style-type: none"> • Rare shaking events, although mostly unfelt - See Map of Selected Earthquakes for Oregon, 1841 through 2002 • "Quake reported under Eastern Oregon reservation" KOIN.com January 23, 2015 	
Earthquakes in the News in Central Oregon Region:	
<ul style="list-style-type: none"> • "Trembler Rocks House, Rattles Chinaware in Nocturnal Visit" Heppner Gazette Times July 16, 1936 • "Is another major quake coming?" The Hermiston Herald April 13, 2004 • "Small quakes shake Northwest" East Oregonian August 13, 2006 • "Oregon's fault shows through" The Oregonian August 31, 2011 • "When - not if - a Japan-scale quake hits Oregon, experts expect deaths, destruction, blackouts and food shortages" Oregon Live.com: May 12, 2011 • "In big quake, Central Oregon would be big relief center" Bend Bulletin - October 20, 2014 	
NHMP Risk Assessment Scores (crustal, 1 min):	
Rank = 6 Probability = Low Vulnerability = Medium	
Previous Mitigation Efforts:	

- Building Code Requirements enforced for all new construction
- Duck 'n Cover! Earthquake Workshop and Facilitated Discussion - April 14, 2011 in Pendleton, OR
- Presentation by OEM "The Effects of a Cascadia Subduction Zone Earthquake on Eastern Oregon," October 1, 2015

MORROW County Relative Ground Shaking Amplification

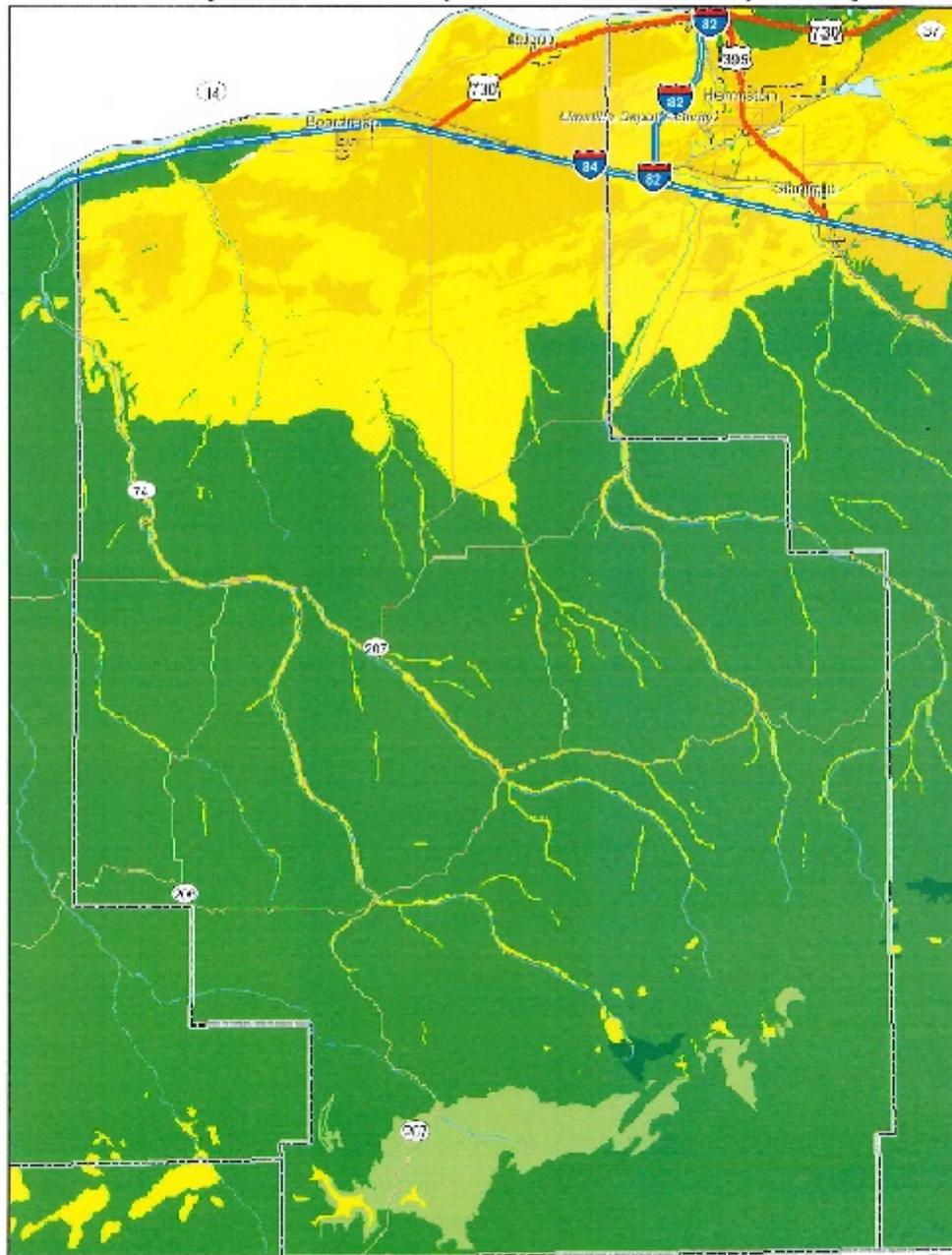


- | | |
|--|---|
|  Low |  High |
|  Moderate |  Very High |

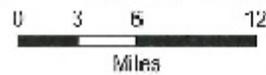


MORROW

County Relative Liquefaction Susceptibility

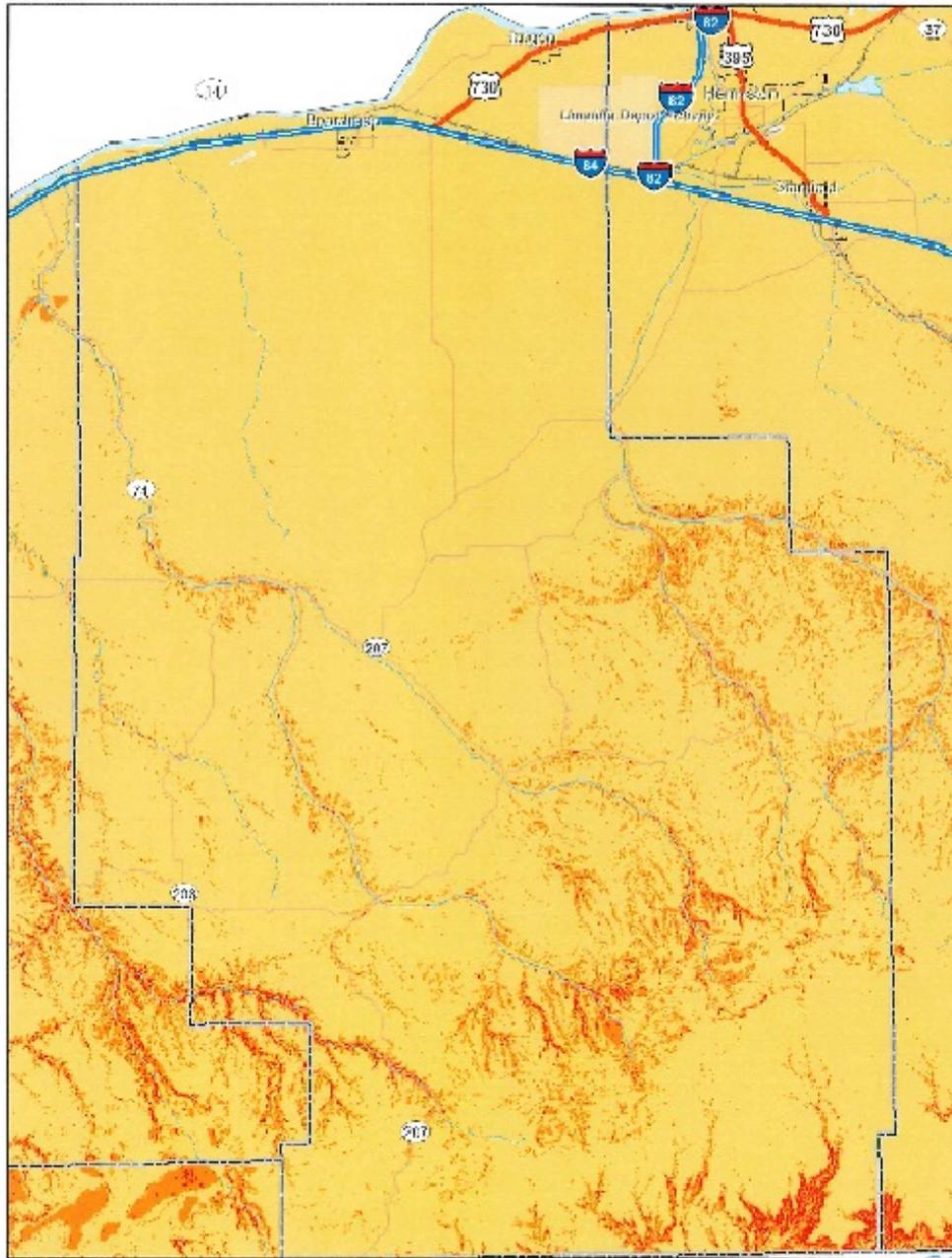


Rare Very Low Low Moderate High Very High



MORROW

County Relative Earthquake Induced Landslide Susceptibility



Flood Summary and Risk Assessment

Flood Summary

According to the National Oceanographic and Atmospheric Agency (NOAA), flash floods in the United States are responsible for more deaths than any other storm event phenomena. Flash flooding usually is the byproduct of very heavy rains in a short period of time over a small geographic area, all of which combine to cause small streams to turn violent. Flooding as a natural hazard is a long-recognized and historically significant event in parts of Morrow County. Flash flooding, which is the prevalent flooding event in Morrow County, can be poorly predicted by weather reports because most often the floods are a result of a microburst, which simply overwhelms both natural and constructed drainage systems. These failures can cause damage to downtowns and farms in the floodplain areas. Emergency services, transportation, power, water and wastewater services, business and hazardous materials storage may be substantially disrupted and can affect the population located in or near the flooded area.

National Flood Insurance Program (NFIP)

Flood Insurance Rate Maps (FIRMs) in Morrow County are current as of December 18, 2007. The exception to this is that the FIRM for Heppner is the outdated version that was re-adopted by FEMA by mistake in 2007. More information is in the city of Heppner's annex. All of Morrow County and its incorporated jurisdictions participate in the NFIP. Out of 107 policies, the coverage is \$13,933,800. There have been 6 claims made with \$13,333 having been paid. There have been 9 community assistance visits since 1994. The last community assistance visit has a closed-date of September 1994. There are no repetitive loss properties in Morrow County.

Flood History, Locations and Impacts in Morrow County:

In addition to many localized floods in the Willow Creek drainage through the years, to include the 1903 flood in which many lives were lost, Morrow County participated in emergency declarations for flooding in February 1996 and January 1997. The County suffered damages to roadways and private property on Rock Creek, Willow Creek, Hinton Creek, and Upper Butter Creek roads in 1997 and the cost was estimated to be at least \$250,000.

- **South Morrow County**

The Willow Creek in southern portion of the County is famous in Oregon for the

1903 flash flood that caused the death of more than 200 people. It was a summer thunderstorm flood and was caused by a large amount of concentrated rainfall and a lack of vegetation in the watershed to slow it down. The City of Heppner, where the flood occurred, lies in a valley surrounded by steep slopes and sits at the confluence of four streams: Willow Creek, Hinton Creek, Balm Fork, and Shobe Creek. The steep slopes of the hills surrounding these creeks, along with the prevalence of severe thunderstorms in the area, contribute to the likelihood of flash flooding. According to the Heppner City Plan (1999), there was one flood per 4.6 years on average between 1883 and 1971. Due to this high incidence of flash flooding on the Willow Creek and other streams, the City of Heppner and the U.S. Army Corps of Engineers built the Willow Creek Dam across Willow Creek. This dam was completed in 1982 and the area subject to flooding was significantly reduced. However, since the Willow Creek Dam was constructed to intercept the waters from Willow Creek and Balm Fork only, the major flood hazard reduction occurred between the face of the dam and the confluence with Shobe Creek. Below Shobe Creek, an extensive area of the valley floor is still considered by FEMA as a designated flood hazard area. The flooding that occurred in 1971 was documented to have originated in the Shobe Creek watershed. As a result of the 1971 Shobe Creek flood, extensive work was done to construct a series of diversions in the Shobe Creek drainage, along with the conversion of cropland to the Conservation Reserve Program (CRP) under a program sponsored by the Soil Conservation Service. Since the construction of the Willow Creek Dam and the work done on the Shobe Creek drainage, no significant flooding has been documented within the City of Heppner.

Lexington and Lone are also located on Willow Creek and experience localized flash flooding events. The U.S. Army Corps of Engineers has indicated that several of the tributaries of Willow Creek below the Willow Creek dam have the potential for flashfloods and warrant consideration toward providing a degree of flood protection. The drainages are Blackhorse Creek at Lexington, Reitmann and Lorraine Canyons at Lone, and Rhea Creek at Ruggs. The Corps recommended that protection be investigated and provided if found to be feasible.

The new Flood Insurance Study for FEMA completed in 2004 on the Willow Creek and tributaries detailed new determinations of the 10, 50 and 100 year discharges to be used in the Morrow County Flood Insurance maps. The new study proposed smaller flood discharges due to the construction of the Willow Creek Dam and drainage work on the Shobe Creek. But, the study revealed an increase in discharges coming from the drainages near Lone.

- **North Morrow County**

The Columbia River is not one of concern as far as extreme flood conditions because it is so regulated by up-stream dams that it does not present a problem

in Morrow County. There are, however, other flash flooding incidents in the northern portion of the County that do cause damage and disruption for the citizens and businesses of the County. The May 19, 2006 storm event is a good example of how a summer thunderstorm event can cause damage. The storm precipitated record-breaking hail and rain enough to wash out areas of local roads such as Bombing Range Road and portions of Highway 730.

Vulnerability and Probability Assessment of Flooding in Morrow County:

Morrow County emergency managers have assessed the probability that the County will experience flooding as "high", that is, one incident likely within a 10 to 35 year period. The vulnerability for flooding is also rated as "high." A high vulnerability means that the percentage of the population or region's assets likely to be affected by a major flood is more than ten percent.

Location of Hazard:	Extent of Hazard at the Location:
<ul style="list-style-type: none"> Southern Morrow County Northern Morrow County 	<ul style="list-style-type: none"> Willow Creek watershed Various low-lying roads
History of Flooding in Morrow County:	
<ul style="list-style-type: none"> 1903 Willow Creek Flood Flooding Emergency Declaration - Executive Order EO -97-09 Heavy rain and Flooding Emergency Declaration - EO -96-13 	
Flooding in the News in Morrow County:	
<ul style="list-style-type: none"> May 17, 2011: "Floods plague county" East Oregonian June 2, 2011: "Flooding hits again" East Oregonian June 2, 2011: "Heppner students go back to elementary school after flood scare" East Oregonian June, 2011: "Flood rushes Heppner" East Oregonian June 8, 2011: "Hinton Creek causes some Heppner flooding" Heppner Gazette Times April 25, 2012: "Storm Brings Rain, Flooding" Heppner Gazette Times March 29-30, 2014: "Heppner's 'little flood' leaves a lasting impact" East Oregonian 	
NHMP Risk Assessment Scores (Riverine)	
Rank = 4 Probability = High Vulnerability = Medium	

Previous Mitigation Efforts:

- Morrow County Flood Hazard Overlay Zone
- Flood Zone Development Standards in the County and the city jurisdictions
- Construction of Willow Creek Dam and Shobe Creek drainage work
- Heppner Flash Flood Plan

Landslide Summary and Risk Assessment

Landslides Summary

Landslides, including rock fall and other debris flow, as a natural hazard exist in every state in the U.S., and can be a serious geologic hazard. They sometimes present a threat to human life, but most often result in a disruption of everyday services, including emergency response capabilities. Landslides can and do block transportation routes, dam creeks and drainages and contaminate water supplies. When these hazards affect transportation routes they are frequently expensive to clean up and can have significant economic impact to the county. The Federal Emergency Management Agency (FEMA) describes debris flows, sometimes referred to as mudslides, mudflows, lahars, or debris avalanches, as common types of fast-moving landslides. These flows most frequently occur during or after periods of intense rainfall or rapid snow melt and have been linked to forest management practices, soil types and the underlying soil structure.

Landslide History and Location in Morrow County

Morrow County Public Works Department clears the County roads from landslide debris in the rugged terrain of the south County areas. These landslides often occur after rain events and are generally not significant enough to block traffic, although along Rhea Creek and Willow Creek Roads landslide events have been most numerous and have been known to temporarily block traffic.

Vulnerability and Probability Assessment of Landslides

According to The Oregon Department of Geology and Mineral Industries (DOGAMI) map of the landslide areas in Morrow County, the landslide risk areas are in the southern portion of The County where the terrain is rugged and forested. DOGAMI has also mapped a large alluvial fan in the north-central portion of the County. This large alluvial fan is located in a farming area, but there are a few farm homes located on it. Further study should determine whether this alluvial fan is active or inactive, and whether more stringent land use regulations should apply there. It currently does not appear on the FEMA flood hazard maps.

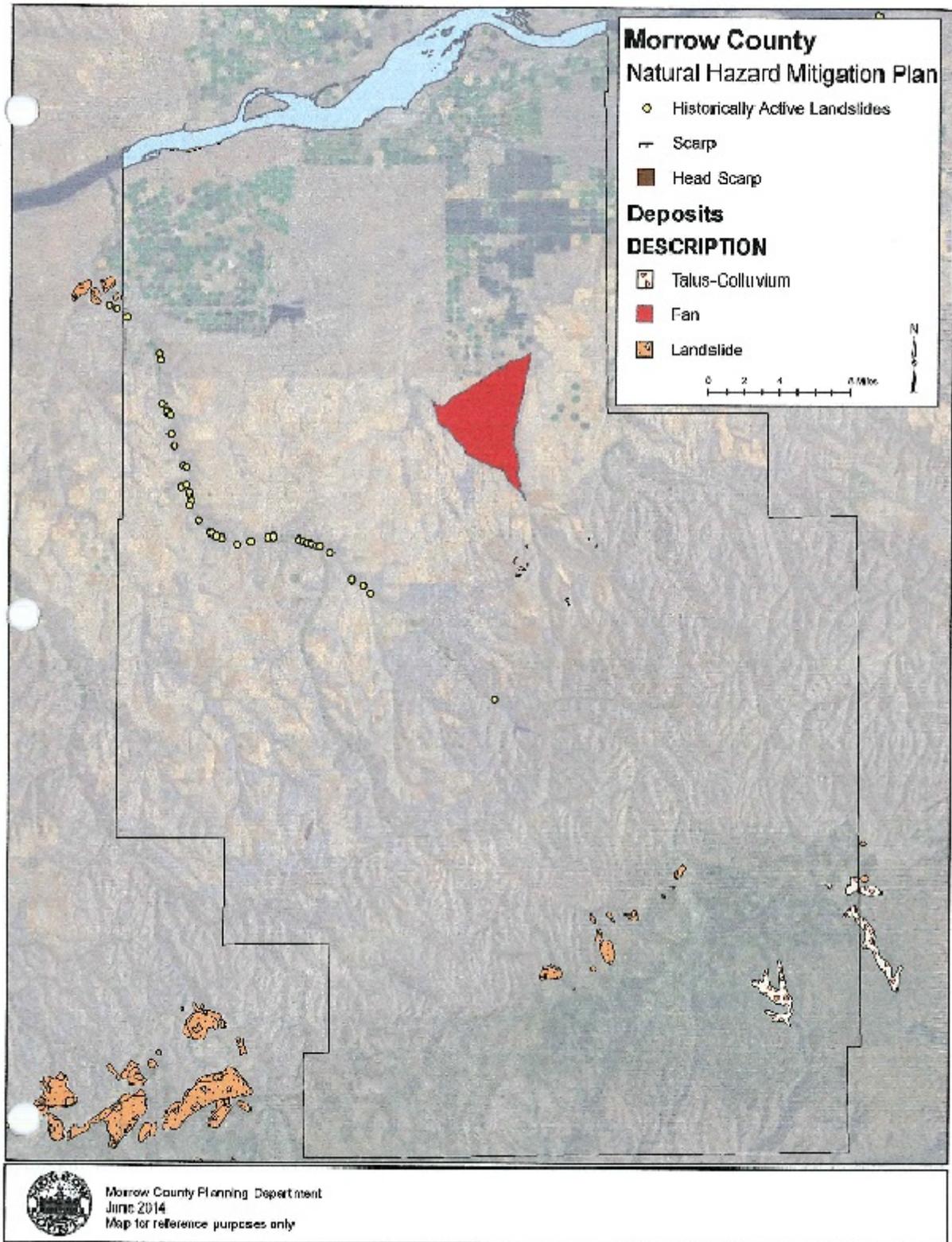
The Oregon Department of Emergency Management has assessed the vulnerability scores, which address the percentage of population or regional assets likely to be affected by a major landslide event is "moderate" which means that 1 - 10 percentage of the population will be affected. One percent of the population of 11,750 is around 117 people. If a landslide were to occur on Highway 207, it is conceivable that 117

people (or one percent) could be kept from their daily routines if the Oregon Department of Transportation is slow about clearing the roadway.

The probability of a landslide occurring in Morrow County has been assessed as "high." This means that one incident is likely within a 10 to 35 year period. These numbers appear to be fairly high, but landslides in the steep, forested areas of southern Morrow County can conceivably occur at this rate. Given landslide occurrence within this context, a "high" probability of a landslide occurrence may be very accurate. Further investigation should be undertaken by the County and appropriate agencies in order to evaluate hazard to people and roads potentially affected by a landslide in these areas. The Department of Geology and Mining Industries (DOGAMI) has provided a general landslide map for Morrow County which is located in this portion of the Plan.

Landslide Risk Analysis

Location of Hazard:	Extent of Hazard at the Location:
<ul style="list-style-type: none"> Southern Morrow County 	Isolated areas in Townships 4 and 5 South, along Rhea Creek Road and Willow Creek Road.
History of Landslide within Morrow County:	
<ul style="list-style-type: none"> According to the DOGAMI historic landslides geographic data, there have been landslides along Willow Creek from Lexington to the Gilliam County border. See map. 	
Landslides in the News in the Morrow County Region:	
<ul style="list-style-type: none"> July 15, 2012: "Mudslide closes 66 miles in WA-14 in Klickitat, Benton" Oregon Live.com from the Associated Press July 15, 2012: "Trains delayed by landslide on rail track by Pasco" Oregon Live.com from the Associated Press 	
NHMP Risk Assessment Scores	
Rank = 8 Probability = High Vulnerability = Low	
Previous Mitigation Efforts:	
<ul style="list-style-type: none"> Landslide mapping is being done by the Oregon Department of Geology and Mineral Industries (DOGAMI). This is the first step to assessing the real risk to life and property due to landslides in the County. 	



Volcanic Summary and Risk Assessment

Volcanic Event Summary

The eastern boundary of the Cascade Range is within 150 miles of Morrow County. The Cascade Range has been an active volcanic area for about 36 million years as a result of the convergence between the North American and Juan de Fuca crustal plates. According to most interpretations, volcanism in the Cascades has been discontinuous in time and space, with the most recent episode of activity beginning about 5 million years ago and resulting in more than 3,000 vents. This activity is observable today as scientists monitor closely ongoing activity at Mount. St. Helens in Washington, the South Sister in Oregon and other locations.

History of Volcanism in Morrow County:

As evidenced by all of the basalt that underlies Morrow County, this region has been mightily influenced by volcanic activity. Despite the scary image of liquid basalt flowing over the central basin area, there has been no such activity since more than 15 million years ago. Today, any risk to Morrow County is perceived as coming from the volcanic Cascade Range to the west. There is no history of volcanic impacts in Morrow County, although volcanic history in the wider region, notably the Mt. St. Helens eruption in 1980, does show that a volcano could affect the County if a volcano in the Cascade Range were to erupt.

Vulnerability and Probability Assessment of a Volcanic Event

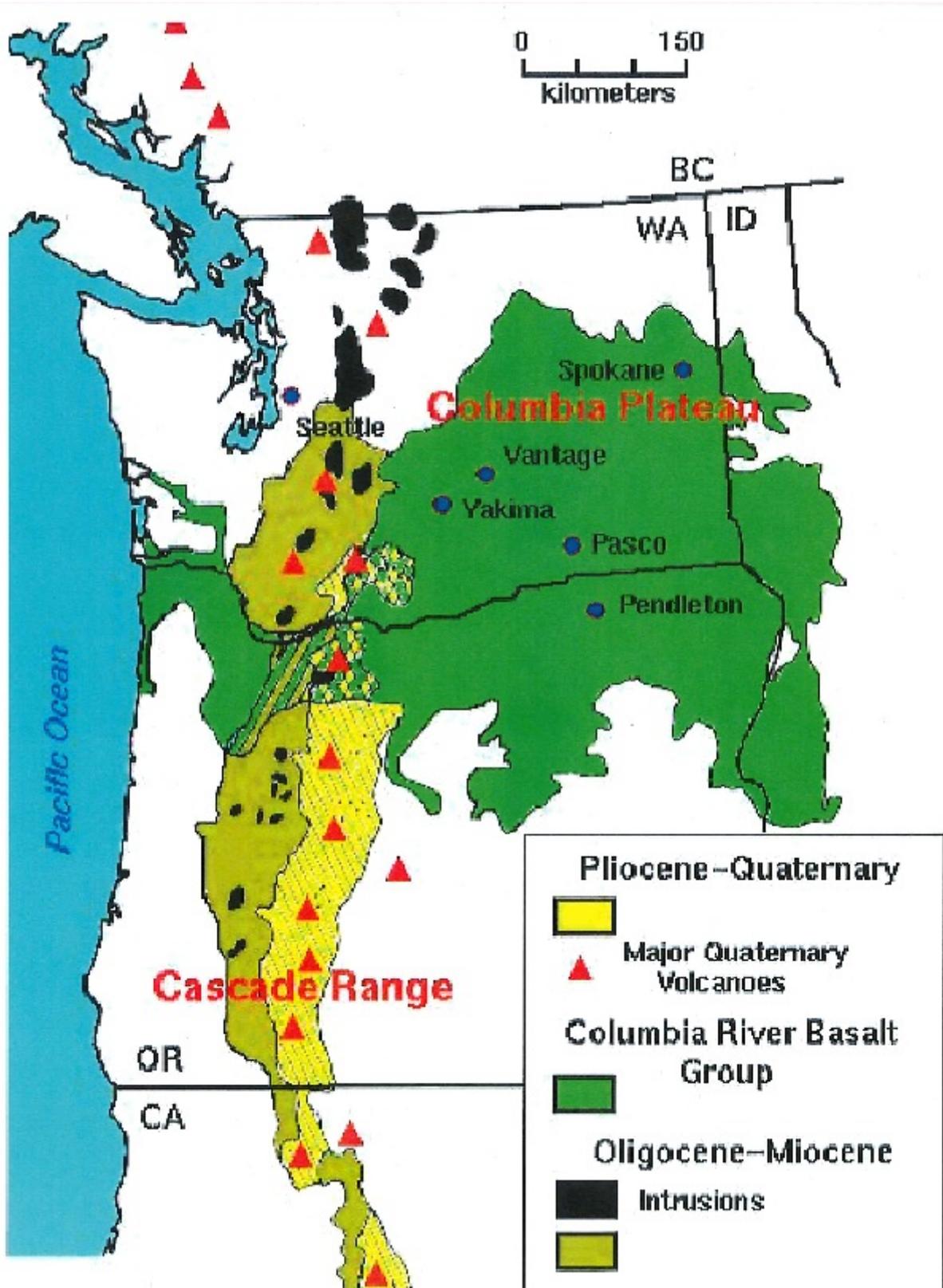
For the citizens of Morrow County the probability of damage and disruption due to the result of a volcanic eruption in the Cascade Range is considered low. The probability of 1 centimeter or more of ash fallout from an eruption anywhere in the Cascade Range is less than 1 in one thousand in any given year. This probability reflects the interplay of two important variables: wind direction and the variability in the thickness of ash that could be deposited at various downwind distances (size/volume of the eruption).

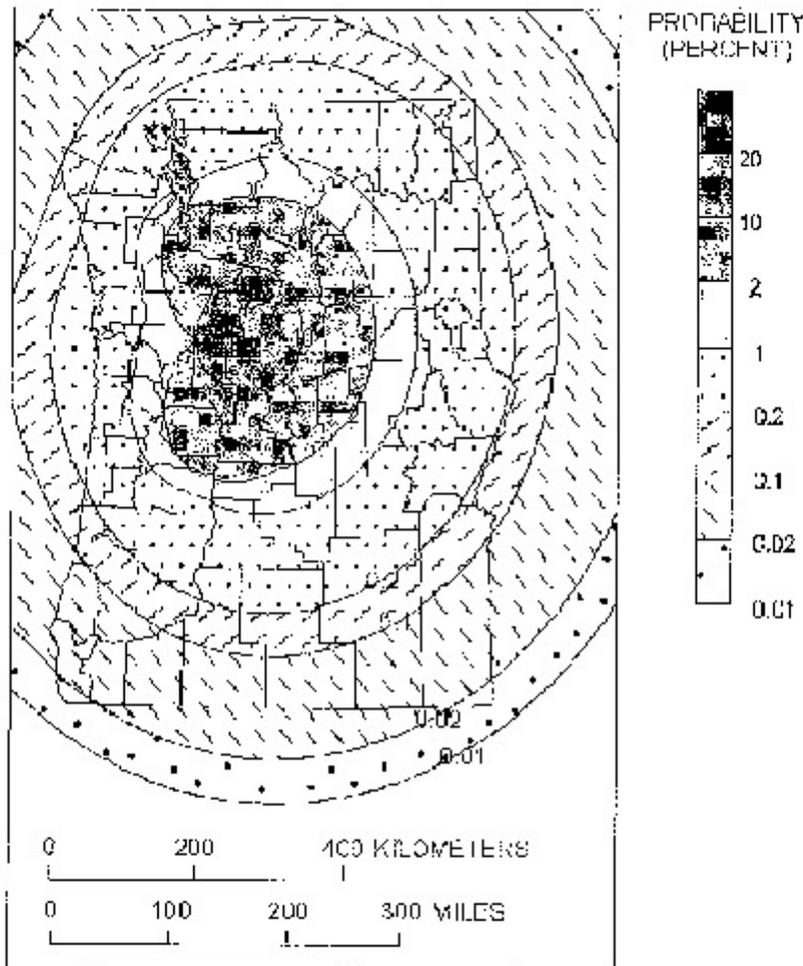
The risk from volcanoes increases further west of Morrow County and, especially of interest to us is the fact that this area contains a major transportation corridor. This corridor runs from the metropolitan area around Portland, Oregon and Vancouver, Washington to the east via the Columbia River, the Union Pacific Railroad, and the I-84 highway. A volcanic event unfortunate enough to close this corridor would have economic impacts on Morrow County which have not been evaluated. Additionally, in the event of a blockage of the Columbia River to the west of Morrow County, the dam

system would be able to contain the water flowing down its course for a limited time only. Thereafter, flooding of the low-lying areas along the river would be an inevitability.

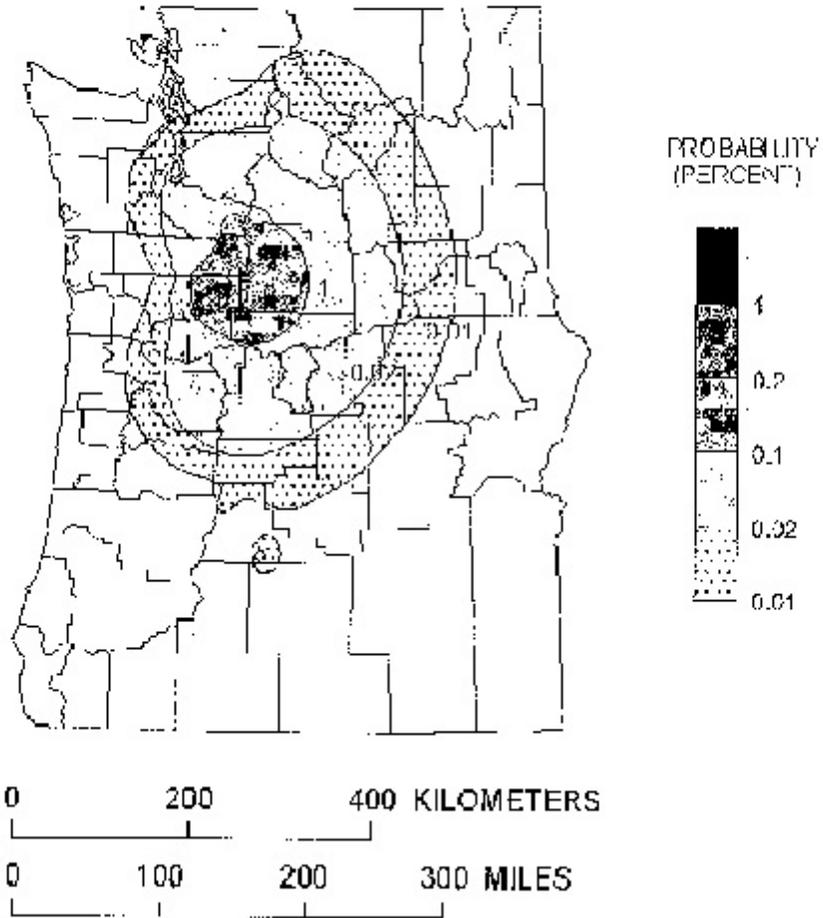
Location of Hazard:	Extent of Hazard at the Location:
• Morrow County	• Whole County
History of Volcanic Events within the Morrow County Region:	
• Katharine Cashman: " <u>Chicken Little Was Right - Sometimes the Sky DOES Fall</u> " Phi Kappa Phi Forum/Vol. 86, No. 1 Winter/Spring 2006	
Volcanic Events in the News within the Central Oregon Region:	
<ul style="list-style-type: none"> • April 5, 2011: "Oregon volcano to be monitored" UPI Staff Writer, Bend OR • August 29, 2011: "Hidden earthquake faults revealed at Mount Hood, Oregon" Oregon Live.com 	
NHMP Risk Assessment Scores	
Rank = 6 Probability = Low Vulnerability = Low	
Previous Mitigation Efforts:	
• None	

Pacific Northwest Volcanics





Map of Washington and Oregon showing the percentage probability of accumulation of ten or more centimeters (four or more inches) of tephra from a large eruption of Mount St. Helens (star). Probability distribution reflects interplay of two variables: wind direction and likelihood that a large eruption will deposit ten or more centimeters of tephra at a give distance.



Annual probability of accumulation of ten or more centimeters (four or more inches) of tephra in Washington and Oregon from eruptions throughout the Cascade Range. Probability distribution reflects the frequency of explosive eruptions at each major Cascade volcano, the variability in the thickness of tephra that could be deposited at various downwind distances, and the variability in wind direction.

Wildfire Summary and Risk Assessment

Wildfire Summary

Wildfire History and Location in Morrow County

Morrow County, along with much of eastern Oregon has had experience with wildfires in the past several years. The prevailing easterly wind and the drought conditions, which exist off and on throughout the western U.S., have exacerbated wildfires in this region. The number of fires in Morrow County, from 1984 to 2003, ranged from 13 in 1993 to 105 in 1999 with a total of 873 fires during this time period burning more than 213,000 acres. Twenty-nine fires burned 300 acres or more during that period and of those, six were 5,000 acres or more. In July and August of 2000 the Governor signed a Determination of Emergency Conflagration Act Due to Fire in Morrow County. The fire that occurred at this time was the "Willow Creek Fire" which started at the junction of Eight Mile Road and Four Mile Canyon in Gilliam County and spread out of control to Morrow County.

Wildfire Impacts in Morrow County Regions

- The southern one-third of the County is forested with the southeast corner of the County within the Umatilla National Forest. The topography of this part of the County is rugged as it is a part of a northwest spur of the Blue Mountains. The precipitation over this higher portion of the County does support conifer forests. These conifer stands, which cover some 205,000 acres, form an almost solid cover over the ridges and slopes of this area. About one thousand acres is juniper or scrub timber. The major species of conifers are ponderosa pine, Douglas-fir and western larch. The fire protection officials in this area characterize the fuel for wildfire potential in this region as very high. There are residential developments in the forested zone, which are the Blake Ranch area and the residential development around Penland Lake and around Cutsforth Park. Although the Blake Ranch area has been incorporated into the Heppner Rural Fire Protection District, the potential for life and property loss is high in the event of a fire due to distance from rural fire protection districts for most of the area. Increasingly, people are using this area for recreational use at the County run Off-Highway-Vehicle Park and more people spend holiday time during weekends and vacation periods here. The residents and visitors to these areas are often inadequately educated or prepared for the inferno that could sweep through the brush and timber, affecting safety and destroying property in minutes.

- In the middle third of the County, precipitation is too low for tree growth without the support of irrigation. Nevertheless, the fire protection districts respond to fires in this area more than in the forested southern region. The middle region of the County is mostly dryland ranges for the pasture of cattle and dryland wheat. The fire protection districts respond to wildfires in this location as a result of lightning strike (70 percent) and human caused (30 percent) fires. The fires generally burn rangeland, Conservation Reserve Program (CRP) fields, and pastures. Heppner, Lexington and Lone are located within this area.
- The northern third of the County contains most of the County's economic infrastructure to include the Boardman Coal-fire plant, Finley Buttes Regional Landfill, the Port of Morrow with its associated industries, Bonneville Power Administration power lines, natural gas pipelines, to name a few. The potential for wildfire in this portion of the County is less than the rest of the County for the following reasons. The farms and fields are irrigated, which means that water is available to keep the crops green and to lessen the ability of wildfire to spread and the area is more populated and contains two fire protection districts to respond to fires in the undeveloped shrub-steppe regions of the County. The ability of firefighters to protect this portion of the County is hampered, however, by the limited transportation network, which does not allow for quick coverage of the undeveloped areas of this portion of the County.

Vulnerability and Probability Assessment of Wildfire

The probability and vulnerability of fires in the Urban/wildland interface in Morrow County are discussed in Chapter 6 of the Community Wildfire Protection Plan. The most extreme risk priority for fire is in the Blake Ranch Addition and the Penland Lake residential area in the forested portion of the County, followed by the Cutsforth Park area, the OHV Park and Anson Wright Park. Infrastructure at risk in the southern portion of the County is listed as the Willow Creek Dam and the Heppner City watershed. A catastrophic wildfire in the watershed above the dam could deposit a large amount of silt, which would reduce the dam's ability to function properly. A wildfire in the forested watershed for the City of Heppner could have detrimental effects on the quality of water supplied to the City's residents.

The Morrow County Community Wildfire Protection Plan describes the communities and infrastructure at risk along with the actions identified to implement the action plan. The "community" at risk in this portion of the County is the Boardman Bombing Range managed by the U.S. Navy. The Areas of Boardman and Irrigon rate a Low/Moderate risk category. The "infrastructure" most at risk from wildfire in this portion of the County is the Conservation Area managed by the Nature Conservancy, with a "moderate" rating, followed by the wind farm, poplar plantations and the PGE Coal Fire Plant each with a "low/moderate rating".

Morrow County emergency managers have assessed the overall vulnerability to fires in the interface areas as "moderate." That means that one to 10 percent of the population

is likely to be affected by a major wildfire emergency. The probability score for wildfires has been assessed as "high." This means that the likelihood of a future major wildfire emergency is likely to be one incident within a 10 to 35 year period.

Risk Assessment

Location of Hazard:	Extent of Hazard at the Location:
<ul style="list-style-type: none"> • Southern Morrow County 	<ul style="list-style-type: none"> • Forested Areas • Recreational Areas • Pastures and Rangelands
<ul style="list-style-type: none"> • Central Morrow County 	<ul style="list-style-type: none"> • Dryland Ranges • Dryland Wheat Fields • Conservation Area
<ul style="list-style-type: none"> • Northern Morrow County 	<ul style="list-style-type: none"> • Boardman Bombing Range • Former U.S. Army Depot
History of Wildfire within Morrow County:	
<ul style="list-style-type: none"> • Willow Creek Fire - EO-00-18 Emergency Conflagration • Willow Creek II Fire - EO-00-24 Emergency Conflagration 	
Wildfire in the News in Morrow County:	

- July 30, 1970: "Blaze Takes Grass and Grain Lands" Heppner Gazette Times
- July 22, 1989: "Wind-whipped blaze challenges volunteer firefighters" Heppner Gazette Times
- July 11, 2007: "Fire burns several acres & double wide" photos in the Heppner Gazette Times
- July 14, 2007: "Fires plague region" Associated Press
- July 1, 2008: "Counties aflame" East Oregonian
- July 6, 2008: "Fire ravages nearly 10,000 more acres" East Oregonian
- July 30, 2009: "Fire scorches depot land" U.S. Army Chemical Material Agency Weekly Update for the Umatilla Chemical Depot
- August 16, 2009: "Insurers tell Eastern Oregon landowners to prevent wildfires"
- undated: "Rude awakening; Residents evacuate as fire threatens homes" East Oregonian
- August 15, 2012: "lone area fire small but stubborn" Heppner Gazette Times
- June 3, 2015: "Crews halt first major fire of the season in Morrow County" Heppner Gazette Times
- June 17, 2015: "Busy week for fire crews" Heppner Gazette Times
- July 1, 2015: "Umatilla National Forest lightning wildfire update" Heppner Gazette Times
- August 26, 2015: "Lightning sparks multiple blazes across County" Heppner Gazette Times

NHMP Risk Assessment Scores

Rank = 5 Probability = High Vulnerability = Medium

Previous Mitigation Efforts:

- Army Wildland Fire Policy Guidance document August 2002
- Fire Management Plan Template to coordinate across administrative boundaries. Document: July 11, 2002
- Morrow County Zoning Ordinance Building Requirements for residences in the Forest Use Zone
- Morrow County Community Wildfire Protection Plan, 2006
- July, 2012 the Heppner Rural Fire Protection District annexed Blake Ranch. This mitigation action enhances the ability of Morrow County to protect lives and property in this area.
- Morrow County CWPP meeting summary discussion of County priority discussion topics.
- Fire stations were added in the Threemile Canyon Farms area and near the PGE electrical generation facility in the northern portion of the County. These actions enhanced the wildfire response in the Conservation Area, Boardman Bombing Range and Threemile Canyon Farms.
- Fire Adapted Communities Learning Network Quick Guides - highlight best practices, lessons learned and tips for fire adapted communities (FACs)

Changing Climate and Wildfire Impacts

In 2010 Oregon completed the Oregon Climate Assessment Report. This 400-plus page report examines the potential social, physical and biological responses to an Oregon climate that may increase in average temperature from 0.2 to 1.0 degrees Fahrenheit per decade through the 21st century. As a global phenomenon, Morrow County will not escape some aspects of this change. Morrow County citizens can expect to experience warmer and drier summers more often with some effect on the potential for wildfires. A key finding in the report states that;

Wildfire is projected to increase in all Oregon forest types in the coming decades. Warmer and drier summers leave forests more vulnerable to the stresses from fire danger west of the Cascades. Wildfire in the forests east of the Cascades is mainly influenced by vegetation growth in the winters that provides fuel for future fires. An increase in fire activity is expected for all major forest types in the state under climate change. Large fires could become more common in western Oregon forests.

COMMUNITY WILDFIRE PROTECTION PLAN

MORROW COUNTY, OREGON



Porter Cr., Morrow County, Oregon

Adopted by the Morrow County Court on December 21, 2016

Updated on July 1, 2014

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EXECUTIVE SUMMARY

Recent fires in Oregon and across the western United States have increased public awareness over the potential losses to life, property, and natural and cultural resources that fire can pose.

The Morrow County Community Wildfire Protection Plan (CWPP) is the result of a countywide effort initiated to reduce wildland fire risk to communities and their citizens, the environment, and quality of life within Morrow County. Citizens, fire districts, county staff or elected officials, and agency representatives have worked together to create a plan that would be successful in implementing fuels reduction projects, fire prevention education campaigns, and other fire-related programs.

See Appendix A for a list of participants of the Morrow County LCG

Plan Adoption

Originally completed in March 2006, this update to Morrow County's CWPP outlines updated priorities, strategies and action plans for fuels reduction treatments in the unincorporated and/or unprotected wildland interface areas.

To ensure recognition by the public, as well as partner agencies and organizations, The Local Coordinating group presented the updated draft of this Morrow County Community Wildfire Protection Plan (**MCCWPP**) to the County Court for adoption on December 21, 2016.

While the Morrow County Community Wildfire Protection Plan provides a foundation and resources for understanding wildland fire risk and opportunities to reduce potential losses from wildland fire, individual communities, fire districts and neighborhoods can take local action by developing community-specific fire plans or by participating in countywide activities for prevention and protection.

The Healthy Forests Restoration Act of 2003 recommends that communities develop a Community Wildfire Protection Plan, as does the FEMA Disaster Mitigation Act of 2000. With formal adoption of this plan, Morrow County is more competitive for funding that may assist with plan implementation. Furthermore, adoption of this plan highlights the partnerships between fire districts, local government, community-based organizations and public agencies. The result of this partnership brings direction to the federal agencies for which communities are a priority for fuel treatment on federally managed and non-federal lands.

Sustaining Fire Plan Efforts

In the past, there has been limited awareness about the investment required to maintain fire protection. From fuels reduction, education and prevention to evacuation, citizens must have the information and resources to be active participants in reducing their risk to wildland fire. For many years, there has been a reliance on insurance, local government, fire service, federal agencies and many other types of organizations to aid us when disaster strikes. The **MCCWPP** encourages citizens to take an active role in identifying needs, developing strategies and implementing solutions to address wildland fire risk by assisting with the development of local community wildfire protection plans and participating in countywide fire prevention activities. Citizen action may be cleaning up brush around homes, installing new smoke detectors, volunteering to be a part of auxiliary, attending community meetings, and/or passing along information on fire prevention to neighbors and friends. With the **MCCWPP** as a foundation, community wildfire plans and local action can guide successful implementation of fire hazard reduction and protection efforts in the County.

Development of the Morrow County Community Wildfire Protection Plan has been no small task. Building a partnership and cooperative environment between "community based" organizations, fire districts, local government and the public land management agencies has been the first step in identifying and prioritizing measures to reduce wildfire risk. Maintaining this cooperation with the public is a long-term effort that requires commitment of all partners involved.

Morrow County is committed to supporting the rural fire districts and communities in their fire protection efforts, both short and long-term. The County will continue to provide support in maintaining countywide risk assessment information and emergency management coordination. During the next 5 years, the Local CWPP Coordination Group will work on implementing the wildfire plan by working with fire districts, community organizations and public agencies to coordinate fuels reduction projects with existing dollars through the National Fire Plan. The **MCCWPP** will focus on public meetings, education campaign; strengthen emergency management and evacuation procedures. **MCCWPP** partners will also focus on refining long-term strategies to maintain fire protection activities in the County. Annual meetings of the local coordinating group and annual open house meetings will continue to take place.

Morrow County Community Wildfire Protection Plan Mission, Goals, Objectives

Developed by the local coordinating group comprised of rural fire protection districts, local government, state and federal agencies, and community-based organizations, the plan mission is to reduce the risk from wildland fire to life, property and natural resources in the County.

Goals

- Protect against potential losses to life, property and natural resources from wildland fire;
- Build and maintain active participation from each Fire Protection District;
- Set realistic expectations for reducing wildland fire risk;
- Identify actions for fire protection;
- Access and utilize federal and other grant dollars;
- Identify incentives for fire protection and community participation;
- Promote visible projects and program successes;
- Monitor the changing conditions of wildland fire risk and citizen action over time;
- Institutionalize fire-related programs and sustain community efforts for fire protection;
- Establish and maintain escape route and adjacent corridors.

To address the complex range of issues within the **MCCWPP**, it became clear early in the planning process that broader and diverse participation was needed for success. Through public meetings and invitations to organizations and stakeholders in the county, sub categories were formed to develop objectives and implement actions to support the plan. Objectives within sub categories are described below.

Category	Objective
General	<ul style="list-style-type: none"> · Provide oversight to all activities related to the MCCWPP · Ensure representation and coordination · Develop and refine goals for fire protection in Morrow County · Develop a long-term structure for sustaining efforts of the MCCWPP
Risk Assessment	<ul style="list-style-type: none"> · Identify Communities-at-Risk in the Wildland-Urban Interface · Develop and conduct a wildland fire risk assessment · Identify hazardous fuels treatment projects
Fuels Reduction	<ul style="list-style-type: none"> · Identify strategies for coordinating fuels treatment projects at a landscape scale · Provide special need citizens with an opportunity to participate in

	programs
Emergency Management	<ul style="list-style-type: none"> · Strengthen emergency management, response and evacuation · Coordinate between County government and local fire districts
Information and outreach	<ul style="list-style-type: none"> · Develop strategies for increasing citizen awareness and action for fire prevention · Reach out to all citizens in the county

County Profile

Based on the 2011 Oregon Bluebook, there are 11,270 people residing in Morrow County accounting for 3,776 households. This rich agricultural land can be roughly divided into three occupational zones-increasing amounts of irrigation farming in the north, vast fields of wheat yielding to cattle ranches in the center, and timber products in the south. The total area of Morrow County is approximately 2,049 square miles, a little more than 1.3 million acres of gently rolling plains and broad plateaus, of which about 130,454 acres is privately owned forestland and about 225,333 acres is managed by federal, state, and county agencies for the public good.

Management	Acres
Private Lands (Residential, Ranches, Timber Companies, etc.)	1,085,129
US Department of Interior, Bureau of Land Management	3,893
US Department of Interior, Fish & Wildlife Service	4,332
Department of Defense, Boardman Range	41,277
US Department of Agriculture, Forest Service, Umatilla NF	144,679
Morrow County	6,410
State of Oregon, Division of State Lands & Dept of Fish & Wildlife	2,182
US Corps of Engineers	22,560
Total	1,310,462

Within the County boundary there are (2) incorporated cities with fire departments, Heppner and Lexington. Both are operated with volunteer fire fighters. In addition, there are (6) rural fire protection districts within the county, Heppner, Ione, Irrigon, Boardman, S. Gilliam Rural, and Pilot Rock Rural Fire Districts. In the Rural Fire Districts, there are only (3) paid fulltime fire fighter, the rest is strictly volunteer. In 2005, Morrow County elected to cover all lands outside the Forest Protection District with rural fire protection for both structures and wildland. The County used the Zone II authority and divided the protection responsibility among the established Rural Fire Districts. In 2012 the Heppner Rural Fire Protection District was expanded to include Blake’s Addition. . But, there are several communities and many well populated areas that still do not have fire departments including Cutsforth Park, Lake Penland, and Reeds Mill.

There are ten (10) organizations that provide wildland fire protection, comprised of 6 Rural Fire Districts, the BLM (Bureau of Land Management), USFS (United States Forest Service), USF&W (United States Fish & Wildlife Service, and ODF (Oregon Department of Forestry). The Pendleton and John Day airports have single engine air tankers (SEATs) available during the summer fire season. There are

helicopter rappel bases at Ukiah and John Day.

Oregon Department of Forestry, Morrow County, and USFS/BLM are in a partnership to suppress wildland fires, and operate under a “closest forces” concept. ODF is responsible for protection of private lands, county and State of Oregon lands within the Forest Protection District. The USFS, Umatilla National Forests, plus BLM work with the ODF to locate the closest fire crew to an ignition and dispatch for initial attack. ODF and the USFS have mutual aid agreements with the rural fire districts within Morrow County that allow for assistance to be provided regardless of jurisdiction.

See Land Management Map in Appendix C

See Morrow County Rural Fire Protection Districts Map in Appendix C

Wildland Fire Risk Assessment

The Morrow County Community Wildfire Protection Plan wildland fire risk assessment analyzes the potential losses to life, property and natural resources. Objectives of the risk assessment are to identify Communities at-Risk and the Wildland-Urban Interface, develop and conduct a wildland fire risk assessment, and identify and prioritize hazardous fuels treatment projects. The analysis takes into consideration a combination of factors defined below:

Risk: Potential and frequency for wildland fire ignitions (based on past occurrences)

Hazard: Conditions that may contribute to wildland fire (fuels, slope, aspect, elevation, and weather)

Values: People, property, community infrastructure, natural and other resources that could suffer losses in a wildfire event.

Protection Capability: Ability to mitigate losses, prepare for, respond to, and suppress wildland and structural fires.

Structural Vulnerability: Characteristics influencing the vulnerability of structures during a wildland fire event (roof type and building materials, access to the structure, and whether or not there is defensible space or fuels reduction around the structure.)

Communities at Risk

The Federal Register has listed cities and areas in the United States that are a risk to urban interface fires. This list includes (3) locations in Morrow County. They are; Blake’s Addition, Custforth Park, and Lake Penland. These areas are very high risk for several reasons including ---

1. No jurisdictional authority for structure suppression.
2. Initial attack time to structures and wildland.
3. Lack of trained people and appropriate equipment to take action on structures.
4. Fuel loading in and around living sites.
5. Fuel loading adjacent to living areas.
6. Very poor access.
7. Location of structures (i.e. in draw bottoms, south slopes, etc.).
8. Construction of structures (combustible roofing etc.).

9. Lack of safety zones for residents and firefighters.
10. Communications and evacuation systems, plans and back-up.

In recent years the population of Morrow County has moved further and further into traditional resource land including forested lands. This has produced a significant increase in threats to life and property and has pushed existing fire protection systems beyond their original or current design capabilities.

Many Morrow County property owners could use assistance identifying the problems they face. Information on risk reduction and mitigation to offset the fire hazards on their property is essential.

Hazardous Fuels Reduction Objectives

Action
1. Identify fuels treatment projects on lands using the risk data.
2. Utilize risk assessment information in applications for National Fire Plan grants and other fuels reduction dollars.
3. Review how grant dollars for fuels reduction projects are administered. Make changes to the program so that they are more directed towards landscape scale treatments.
4. Develop long-term strategies for maintenance of fuels reduction
5. Focus Strategic planning for hazardous fuels treatment projects on evacuation routes/corridors. (County Roads/FS Roads/State Hwys/Public Access Roads/Private Drives)
6. Promote information and outreach through all fuels reduction programs to ensure strong community involvement in fuels reduction and wildland fire prevention projects.

Fuels Treatment Areas

The State, County, Rural and City fire districts, community organizations and agency partners have worked together to identify fuel treatment areas. This process includes examining the risk assessment maps and strategic planning units and using local knowledge and information gathered during community meetings to identify the most appropriate places to prioritize for treatment. Consideration is given to areas where the federal agencies have planned fuels reduction projects in order to achieve the landscape scale treatment.

Monitoring Strategy

The primary objective of the local coordinating group is to provide guidance for all elements of planning and implementation of the Morrow County Community Wildfire Protection Plan. The local coordinating group will continue to provide oversight through meetings and coordination with the fire protection agencies and the communities at risk in Morrow County.

CHAPTER 1: INTRODUCTION

On a normal summer day in Morrow County you can find many residents checking the skies for a building thunderhead or a plume of smoke. Wildland fire has impacted the county since long before the first settler moved into the area.

Environment and Natural Resources

Morrow County, created from Umatilla County in 1885, is located east of the Cascades in north-central Oregon. It was named for J.L. Morrow, an early resident. Morrow County contains more than one-million acres of gently rolling plains and broad plateaus. This rich agricultural land can be roughly divided into three occupational zones-increasing amounts of irrigation farming in the north, vast fields of wheat yielding to cattle ranches in the center, and timber products in the south. With the advent of center pivot irrigation technology, Morrow County has become one of Oregon's fastest growing areas in terms of population, personal income, and agricultural and industrial development. The Port of Morrow, second largest in the state in terms of tonnage, serves as a gateway to the Pacific Northwest and Pacific Rim markets.

Strategy

Morrow County has lived with fire since the county was first established in 1885. Fire has been a major tool in shaping the existing forest and other plant communities since long before the country was settled. Lightning and humans will always contribute to fire starts during all conditions dry or wet. Of the three fire behavior components (fuel, weather, topography), fuels are the one variable that humans can easily influence and modify. With this in mind, this plan is aimed at reducing fire effects by reducing fuel loading and to produce conditions, in case of fire, that are considered manageable during most conditions and to improve initial attack capabilities for all types of fires.

1. The number one goal of this plan is to provide for the protection of the public and create a safe work environment for fire suppression forces. With the reduction of wildland fuels we move closer to achieving the goal of all structures surviving an on-coming fire.
2. Everyone involved with this plan must work together to successfully manage hazardous fuels within and near the communities. Those included are association groups, Federal agencies, Local Agencies, local and state fire protection districts, private industrial timberland owners, and private land and home owners.
3. There are often weather conditions where high temperatures, single digit humidity's, and strong winds occur simultaneously. Under these conditions prevention through communication to reduce fire start potential is the only protection for communities from wildland fire effects. These conditions can lead to plume dominant fires which create their own burning conditions and are literally unmanageable and can become catastrophic.
4. The key to making this plan work will be increasing public awareness through informational programs. This county is a typical Eastern Oregon county with small cities scattered throughout with a population of people living in homes scattered outside the city limits. These homes are located in all fuel types. Some are snuggled in the timber adjacent to the forest. Others are in the lower elevations of grass/juniper/sagebrush climate. Distance from any type of fire protection is one of the biggest problems for these homes and access. Depending upon the day, suppression response times could be as long as 1 hour.

Fire Policies and Programs

There are various local, state and federal programs and policies related to community fire planning and fire protection. Most recently, the Healthy Forests Restoration Act, signed into law by President Bush in 2003, calls for the development of Community Wildfire Protection Plans for all communities at risk from wildland fire. This section describes these requirements, as well as related County, state and federal programs.

Healthy Forest Restoration Act (HFRA) / Healthy Forest Initiative (HFI)

In 2002 the President announced the Healthy Forest Initiative (HFI) designed to identify and remove barriers to the implementation of projects that were developed to restore the health of the national forests. HFI was focused on renewed efforts to be more effective and efficient in carrying out restoration projects. Under HFI, new categorical exclusions were developed to allow the federal agencies to move more quickly through National Environmental Policy Act (NEPA) under appropriate circumstances, streamlined administrative review processes for NEPA, and created new regulations under the Endangered Species Act for National Fire Plan projects to streamline consultation with federal regulatory agencies. It also set the stage for extensive discussion between the administration and Congress that resulted in new legislation addressing forest health.

Congress enacted the Healthy Forest Restoration Act in November 2003. It provides new tools and additional authorities to treat more federally-managed acres more quickly to expedite our restoration goal. It strengthens public participation and provides incentives for local communities to develop community protection plans. It limits the complexity of environmental analyses for hazard reduction projects, provides more effective appeals process and instructs the Courts that are being asked to halt projects, to balance the short-term affects of implementing the projects against the harm from undue delay and long term benefits of a restored forest.

Title I of the HFRA addresses vegetation treatments on certain types of National Forest System and Bureau of Land Management lands that are at risk of wildland fire or insect and disease epidemics.

This title:

- Encourages streamlined environmental analysis of HFRA projects;
- Provides for administrative review of proposed HFRA projects on National Forest System lands before decisions are issued;
- Contains requirements governing the maintenance and restoration of old-growth forest stands when the Forest Service and BLM conduct HFRA projects in such stands;
- Requires HFRA projects in the Forest Service and BLM to maximize retention of larger trees in areas other than old-growth stands, consistent with the objective of restoring fire-resilient stands and protecting at-risk communities and Federal lands;
- Encourages collaboration between Federal agencies and local communities when community wildfire protection plans are prepared;
- Requires using at least 50% of the dollars allocated to HFRA projects to protect communities at risk of wildland fire;
- Requires performance to be monitored when agencies conduct hazardous-fuel reduction projects and encourages multiparty monitoring that includes communities and other stakeholders; and
- Encourages courts that consider a request for an injunction on an HFRA-authorized project to balance environmental effects of undertaking the project against the effects of failing to do so.

Title III of the Act also encourages the development of Community Wildfire Protection Plans under which communities will designate their Wildland Urban Interface (WUI), where HFRA projects may take place. Half of all fuel reduction projects under the HFRA will occur in the community protection zone as defined by HFRA. HFRA also encourages biomass energy production through grants and assistance to local communities to create market incentives for removal of otherwise valueless forest material.

National Fire Plan and 10-Year Comprehensive Strategy

The National Fire Plan (NFP) was established after a landmark fire season in 2000 with the intent of actively responding to severe wildland fires and their impacts to communities while assuring sufficient

firefighting capacity for the future. The NFP is a long-term commitment intended to help protect human lives, communities and natural resources, while fostering cooperation and communication among federal agencies, states, local governments, tribes and interested publics. The NFP focuses on 1) fire suppression and protection, 2) restoration/rehabilitation, 3) hazardous fuels reduction, 4) community assistance, and 5) accountability. The Oregon and Washington NFP Strategy Team sees reduction of unnatural hazardous fuel levels that threaten communities and forest ecosystems as the foundation principle for dealing with fire risks (NFP Strategy Team 2002). Most NFP funding in Oregon goes to wildland fire preparedness and hazardous fuel treatment (USDI and USDA 2003).

The National Fire Plan is a long-term investment that will help protect communities and natural resources, and most importantly, the lives of firefighters and the public. It is a long-term commitment based on cooperation, and collaboration, communication among federal agencies, states, local governments, tribes and interested publics. The federal wildland fire management agencies worked closely with these partners to prepare a 10-Year Comprehensive Strategy, completed in August 2001. The National Fire Plan calls for the development of Community Fire Plans to aid in effectively implementing NFP goals.

Senate Bill 360: Oregon Forestland-Urban Interface Fire Protection Act

The Oregon Forestland-Urban Interface Fire Protection Act of 1997 (SB360) is intended to facilitate development of an effective WUI protection system in Oregon by 1) establishing policies regarding WUI protection, 2) defining the WUI in Oregon and establishing a process and system for classifying the interface, 3) establishing standards for WUI property owners so they can manage or minimize fire hazards and risks, and 4) providing the means for establishing adequate, integrated fire protection systems in WUI areas, including information and prevention efforts. This act is only pertinent to areas within ODF's protection boundaries and is going to be implemented in all of these areas across the state by 2011.

Oregon Statewide Land Use Planning Goal 7

The intent of Oregon Statewide Land Use Planning Goal 7 for Areas Subject to Natural Hazards is to protect people and property from natural hazards. Goal 7 directs local governments to adopt comprehensive plans (inventories, policies and implementing measures) to reduce risk to people and property from natural hazards. Goal 7 also indicates that new hazard inventory information provided by federal and state agencies shall be reviewed by the Oregon Department of Land Conservation and Development (DLCD) in consultation with affected state and local government representatives. After such consultation, the DLCD shall notify local governments if the new hazard information requires a local response. Local governments shall respond to new inventory information on natural hazards within 36 months after being notified by the DLCD, unless extended by the Department. – <http://www.lcd.state.or.us/LCD/docs/goals/goal7> *In relationship to ODF, as new data is identified, and particularly high hazard areas identified through Senate Bill 360, local governments will need to address the provisions of Goal 7.)*

Federal Emergency Management Agency Disaster Mitigation Act of 2000

Federal Emergency Management Agency (FEMA) requirements under Title 44 CFR Part 201 of the Disaster Mitigation Act of 2000. This legislation specifies criteria for state and local hazard mitigation planning which require local and Indian tribal governments applying for Pre-Disaster Mitigation (PDM) funds to have an approved local mitigation plan. These may include county-wide or multi-jurisdictional plans as long as all jurisdictions adopt the plan. Activities eligible for funding include management costs, information dissemination, planning, technical assistance, and mitigation projects.

CHAPTER 2: COORDINATION PROCESS

Coordinating Groups

There are two major committees that deal with all aspects of fire emergencies in Morrow County. The Area 9 (Umatilla/Morrow County) Fire Defense Board is represented by all the municipal fire departments, Oregon State Fire Marshal's office, and Rural Protection Districts. The second is under the Master Agreement and Operating Plan between the Federal Wildland Fire agencies and the States of Oregon and Washington.

Community outreach will be done through both of these groups. There are many homes and structures that are in danger from possible wildland fire. Many of these homes are situated in risk areas due to the desire for seclusion. It will be a major hurdle to contact these land owners and inform them about defensible space or convince them it is a necessary objective. Emergency operations will also cover these possibilities.

Gaining committee representation

The **MCCWPP** Local Coordinating Group (LCG) began conducting outreach with community-based organizations throughout the County. The **MCCWPP** Local Coordinating Group invited all organizations, business or residents with an interest in working on fire-related issues to participate.

The LCG began by ODF conducting meetings with all of the fire districts, the Forest Service, and BLM. This process resulted in each of the agencies appointing at least one person to the **MCCWPP** Local Coordinating Group. Agencies directed field officers, fuels management specialists, fire prevention staff and others to participate.

Executive Committee

The Executive Committee is responsible for Documentation and Filing of the Morrow County Community Wildfire Protection Plan. Members of the Executive Committee include:

Members Representing;

Morrow County Court
Area 9 Fire Defense Board
Oregon Department of Forestry

Local Coordinating Group

The Local Coordinating Group is responsible for providing guidance to all elements of planning and implementation of the Morrow County Community Wildfire Protection Plan. It also coordinates the priority of communities at risk and projects. Members of the Local Coordinating Group include:

Members Representing;

Morrow County Court
Area 9 Fire Defense Board
Oregon Dept. of Forestry representing State Agencies: ODF&W
Federal Agencies: USFW, DOD Navy, USFS Umatilla NF
Community Leaders
County Agencies

Local Coordinating Group Responsibilities;

Actions	Timeline	Outcomes
Gain representation and involvement from RFPD	Short-term	Active participation by each RFPD
Access and utilize federal dollars while they are available	Short-term	Continued federal funding for fuels reduction
Set realistic expectations for reducing wildland fire risk	Ongoing	Increased public awareness about wildland fire
Coordinate priorities for funding	Ongoing	Achieve landscape treatment and equitable distribution
Promote visible projects and program successes	Ongoing	Increased awareness
Find funding to support efforts	Long-term	Increased Funding
Identify incentives for fire protection and community participation	Long-term	Increased citizen action
Engage insurance companies	Long-term	Insurance industry investment in activities
Promote local investment (property, infrastructure, business)	Long-term	Increased economic development

Citizen Involvement

The heart of the Morrow County Community Wildfire Protection Plan is the interest, and long-term involvement of residents in reducing wildland fire risk around their homes and in their community. Informing citizens and providing tools and resources that enable people to prepare for wildland fire will have lasting effects to building resilience to wildland fire and capacity for communities to work together toward common goals. Providing tools, information and resources that enable citizens to understand, prepare for, recover from, and learn to live with wildfire can have long-lasting effects in building resilience to catastrophic wildfire. This can also increase the capacity for communities to work together toward common goals.

One goal of the Morrow County CWPP LCG is to have the landowners of Morrow County driving the process for the reduction of risk of wildland fire around their communities. To do this, community groups need to be approached and/or formed to help identify the individual needs and projects that the communities themselves would like to have completed within their particular WUI areas. As this process develops, the end result is communities approaching land management agencies and the CWPP LCG to get projects identified on the action plan, funds secured, and implemented on the ground. This will create more localized buy-in of projects on privately and publicly, owned and managed land, along with creating a more stable foundation for land managers to implement projects within WUI areas.

Community Risk Assessment

Understanding the risk of wildfire to people, property and natural resources is an essential starting point for identifying priorities for treatment. The Morrow County risk assessment includes a comprehensive analysis of risk, hazard, values, structural vulnerability, and protection capabilities. Values are defined in many ways and by many different agencies and programs (for example, the National Association of State Foresters, the Healthy Forests Restoration Act, the National Fire Plan, and the BLM Risk Assessment Model (RAMs), among others.)

Refer to Appendix B for a flow chart of the CWPP process, from plan development to project implementation.

CHAPTER 3: Wildland Fire Risk Assessment

Fire Occurrence - History of fire within the community

Fire is an important disturbance mechanism in many of the ecosystems in Morrow County. The number of these fires, from 1984 to 2003, ranged from (13) in 1993 to (105) in 1999 with a total of 873 fires during this time period burning more than 213,000 acres. (29) Fires burned 300 acres or more during that period and of those, (6) were 5000 acres or more. *(Due to inconsistent tracking of historic fire data, the chart below is incomplete for fire numbers and acreage burnt)*

Many of the significant fire events in Morrow County occur as a result of dry lightning storms. Wide spread dry lightning is fairly frequent, occurring approximately every one to three years. These episodes can cause 50-100 ignitions in one day requiring suppression.

Morrow County 2003 to 2013

Acreage Size Class	Total Acres Burned	Number of Fires
A 0-.24	2.66	38
B .25-9.9	45	26
C 10-99.9	170	5
D 100-299.9	270	2
E 300-999.9	0	0
F 1000-4999.9	0	0
G 5000-9999.9	0	0
H 10,000+	0	0
Total	488	71

For more fire history information see fire maps in Appendix C

Wildland Urban Interface (WUI)

The boundaries of the **Wildland Urban Interface** are based on the actual distribution of structures and communities adjacent to or intermixed with wildland fuels.

Fuel reduction treatments are designed to protect human communities from wildland fires as well as minimize the spread of fires that might originate in urban areas. The management objective in the wildland-urban interface zone is to enhance fire suppression capabilities by modifying fire behavior inside the zone and providing a safe and effective area for fire suppression activities.

See WUI Map in Appendix C

Fire Regime and Condition Class

Code	Fire Regime	Description
I		Less than 35 year fire return interval, low severity, usually non-lethal.
II		Less than 35 year fire return interval, stand replacement severity.
III		35 – 100 year return fire interval, mixed severity.

Condition Class 1 = Fire frequencies are within or near the historical range, and have departed from historical frequencies by no more than one return interval.

Condition Class 2 = Fire frequencies and vegetation attributes have been moderately altered from the historical range, and fire frequencies have departed from historical frequencies by more than one return interval.

Condition Class 3 = Fire frequencies and vegetation attributes have been significantly altered from the historical range, and fire frequencies have departed from historical frequencies by multiple return intervals. The risk of losing key ecosystem components is high.

See Fire Regime / Condition Class Maps in Appendix C (Due to lack of data for land exterior the National Forest Boundary, the determinations for non-USFS land within the WUI areas in these maps are based upon local knowledge and the definitions for these categories)

CHAPTER 4: Emergency Operations

Wildland Fire Suppression Procedures

Currently all wildland fires in Morrow County are aggressively suppressed. This is done through a Master Cooperative Fire Protection Agreement. This agreement consists of five organizations:

John Day Unit, Central Oregon District, ODF, (with Mutual Aid Agreements with all cities and rural Fire Departments)

Umatilla National Forest, USFS

Prineville District, BLM

Vale District, BLM

USF&W Service

Wildland fire fighting organizations have a multitude of support resources. Movement of federal; resources are coordinated through local dispatch centers and the Northwest Coordination Center (NWCC) in Portland, Oregon. State resource movement is coordinated through local dispatch centers, the ODF-Salem Coordination Center and the WDNR dispatch office in Olympia, Washington

Tribal Resources

Indian tribal resources are available through the use of existing Bureau of Indian Affairs/Tribal Cooperative agreements.

Inmate Resources

Oregon Department of Forestry has an agreement with Oregon Department of Corrections for the use of inmate resources to fight fires and support fire suppression activities. The use of inmates is available through the Master Cooperative Fire Protection Agreement to other agencies.

International Resources Mexico, Canada

The use of international resources is available through the Northwest Compact and Annual Operations Guidelines and International Agreements in the National Mobilization Guide.

There are two types of initial attack available; one is by air, the other by land. There are several areas within the county, mostly on public land that are road less due to the rugged topography. Initial attack in these areas is mainly by air. Redmond, Oregon houses a smoke jumper and retardant base, also LaGrande, Oregon has an air tanker base. The John Day Airport has a helibase equipped with rappellers and a small engine air tanker (SEAT). All of these fire support facilities are fully capable of initial attack on fires that are not obtainable by any roads. Again, as conditions become worse due to drying or multiple fires, these organizations can call in more support from other areas, even outside the state/region. Areas with road system access have all types of agency people and equipment available to them. The USFS has (4) engines and (1) 5-person hand crew working out of Tupper and (4) engines and (1) 5-person hand crew working out of Ukiah. The ODF has a total of 15 engines scattered throughout the area including two in Heppner, two in Monument, two in Fossil. Morrow County, DOD Navy, and Area 9 Fire Defense Board have several engines along with personnel and heavy equipment scattered about the county for fire suppression.

There is also a very large work force in the contracting arena that can be called upon. Contracting equipment consists of dozers, lowboys, water tenders, engines and 20 person crews, and personnel with specialized talents.

If a fire goes beyond the initial attack capabilities of the local resources there are special groups that can be ordered to take over the suppression responsibilities. These are known as Incident Management

Teams, and have the ability to set up and do all the functions needed to suppress the fire in a more or less self-sufficient manner.

Central Oregon IMT, Blue Mountain IMT, Oregon Department of Forestry IMT's and Pacific Northwest National IMT's are all partially staffed by local agency personnel.

If the fire is large enough it would strip the county of all its capable initial attack resources and leave the area vulnerable to new starts. The Incident Management Team will set up a small city type camp with the capabilities of feeding and housing hundreds of resources. The "Team" supports the crews with equipment and supplies to safely suppress the fire. The important factor is the team uses outside agency help and contractors so local forces can be released back to their regular initial attack duties.

Conflagration Act

In the event a large amount of structures are threatened by a Wildland fire in an area protected by a city or rural fire department, the Area 9 Fire Defense Board Chief can request of the Oregon State Fire Marshall to request the Governor to declare an emergency and evoke the Conflagration Act mobilization. In area outside of city and rural fire departments, the County Court can request of the Governor to declare an emergency and evoke the Conflagration Act mobilization. This will make available structural resources along with Structural IMT's through the Oregon State Fire Marshal's office immediately to protect those structures.

Structures

The (2) city fire departments and the (5) rural departments are the organizations properly trained to do structure fire-fighting. Although ODF, USFS and BLM personnel are not trained, equipped, or organized to fight structure fires, they will assist the fire departments in protecting exposures and surrounding vegetation by cleaning around houses, setting up pumps and locating and constructing fire lines. The county has the following list of current fire departments:

AGENCY
Heppner City FD
Lexington City FD
Heppner Rural Fire District
Ione Rural Fire District
Boardman Rural Fire District
Irrigon Rural Fire District
Pilot Rock Rural Fire District
S. Gilliam Rural Fire District

CHAPTER 5: Monitoring and Evaluation

Assessing Benefits and Costs of Mitigation

Many federal grant programs require benefit/cost analysis of proposed actions. This ensures that the investment will yield greater benefits than the investment costs. The benefits of planning, mitigation and preparedness for wildland fire, however, can be difficult to quantify. It can be difficult to put a monetary number to the value of human, environmental, cultural and other social resources.

The Morrow County LCG emphasizes developing priorities of action for hazardous fuels treatment, education, emergency management and biomass utilization. The process to develop these priorities has included a technical risk assessment and collection of community input on values. The plan also takes into consideration the fact that low-income, elderly, disabled and other citizens with special needs may require extra assistance or resources to take fire protection actions. All of these values should be considered in developing priorities and assessing the costs and benefits of projects.

When applying for grants that require benefit/cost analysis, there are resources available through FEMA and other agencies that can assist in quantifying these costs and benefits.

Plan Oversight

The primary objective of the Local Coordinating Group is to provide guidance for all elements of planning and implementation of the Morrow County Community Wildfire Protection Plan. The Local Coordinating Group will continue to provide oversight through review of the plan and meetings with the local agencies and interested parties.

Monitoring

The purpose of this monitoring strategy is to track implementation of activities and evaluate how well the goals of the **MCCWPP** are being met over time. Monitoring measures progress over time so that we can understand how well our objectives are being met. The data we gather will provide in status and trends of the **MCCWPP**.

The following are the types of monitoring:

- Implementation Monitoring: Did you do what you said you would do?
- Effectiveness Monitoring: Did treatments meet objectives?
- Verification Monitoring: Evaluates whether our objectives helped to meet broad **MCCWPP** goals. Did our actions lead to the outcomes we expected?

Each functional element of the Morrow County Community Wildfire Protection Plan (risk assessment, fuels reduction, emergency management, and education and outreach) provides monitoring tasks for recommended action items. Table 5.1 provides a summary of monitoring task for each of these functional areas that the LCG will conduct.

Table 5.1 CWPP Summary of Monitoring Tasks

Objective	Monitoring Tasks	Timeline
Risk Assessment	<p>Continue to use reliable and usable data that is compatible among the various partner agencies.</p> <p>Monitor changes in the Federal WUI boundaries.</p> <p>Update risk assessment with new data or changing conditions.</p> <p>Continue to reflect community input from meetings as a risk assessment.</p> <p>Inventory private, county, state and federal existing and planned fuels projects.</p> <p>Once this plan has been completed, monitor acres treated, location and relative risk rating annually.</p>	Annually
Fuels Reduction	<p>Identify and prioritize fuels treatment projects on an annual basis.</p> <p>Track grants and utilize risk assessment data in new applications.</p> <p>Track fuels reduction grants and defensible space projects occurring on homes of citizens with special needs.</p> <p>Document number of residents that maintain treatment</p> <p>Monitor number of evacuation corridors/roads treated for fire protection on county, private, state and federal roads.</p> <p>Track education programs and document how well they integrate fuels objectives.</p> <p>Track grant dollars and projects directed to citizens with special needs.</p>	<p>Annual</p> <p>Ongoing Annual</p> <p>Every 3 years</p> <p>Annual Annual</p>
Emergency Management	<p>Review emergency management policies and procedures.</p> <p>Update map illustrating arterial routes and shelter sites.</p> <p>Review evacuation procedures with the County Fire Defense Board.</p>	Annually
Information and Outreach	<p>Evaluate techniques used to mobilize and educate citizens.</p> <p>Report on techniques and lessons learned.</p> <p>Review materials available in the clearinghouse.</p> <p>Random sample of “certified” homes to measure whether or not they continue to meet standards.</p> <p>Evaluate responsiveness of citizens to campaign materials (use the annual BCC survey – are you familiar with the “Are you prepared” campaign?).</p> <p>Evaluate # and type of fire education programs delivered to youth.</p> <p>Monitor interest and actions by the Insurance industry.</p>	<p>Annual review</p> <p>Annual review</p> <p>Bi-Annual Annual Eval</p> <p>Every 3 yrs</p> <p>Annual review</p>

CHAPTER 6 Action Plan

This chapter describes the Communities-at-Risk and Infrastructure-at-Risk along with the actions identified by the Local Coordinating Group to implement the Morrow County Community Wildfire Protection Plan. The action plan in this chapter will be updated by the LCG twice annually upon notification by Morrow County Emergency Management to the other members of the LCG.

Table 6.1 Communities-at-Risk Matrix

(Using the definitions and criteria from the Federal Register Vol 66, August 2001.)

Community	Interface Category	Risk Factor 1 Fire Behavior Potential	Risk Factor 2 Value at Risk	Risk Factor 3 Infra- structure	Composite Risk Priority
Blake's Addition	2	1	1	1	Extreme
Cutsforth Park	2	1	2	1	High/Extreme
Irrigon	2	3	1	3	Low/Moderate
Boardman	2	3	1	3	Low/Moderate
Heppner	1	2	1	3	Low/Moderate
Ione	1	2	1	3	Low/Moderate
Lake Penland	2	1	1	1	Extreme
Lexington	1	2	1	3	Low/Moderate
Morrow CO OHV Park	NA	1	2	2	High
Anson Wright Park/ Reeds Mill	NA	1	2	2	High
DOD Boardman Range	NA	2	2	2	Moderate
Hardman	2	3	2	2	Moderate
Tupper G.S.	NA	1	2	2	High

Interface Categories.

Interface Category 1 is where well-defined urban and suburban development presses up against open expanses of wildland areas.

Interface Category 2 is characterized by isolated homes, subdivisions, and small communities situated predominantly in wildland settings.

Risk Factor 1: Fire Behavior Potential

Situation 1(High risk): In these communities, continuous fuels are in close proximity to structures. The composition of surrounding fuels is conducive to crown fires or high intensity surface fires. There are steep slopes, predominantly south aspects, dense fuels, heavy duff, prevailing wind exposure and/or ladder fuels that reduce fire-fighting effectiveness. There is a history of large fires and/or high fire occurrence.

Situation 2(Medium risk): In these communities, there are moderate slopes, broken moderate fuels, and some ladder fuels. The composition of surrounding fuels is conducive to torching and spotting. These conditions

may lead to moderate fire-fighting effectiveness. There is a history of some large fires and/or moderate fire occurrence.

Situation 3(Low risk): In these communities, grass and/or sparse fuels surround structures. There is infrequent wind exposure, flat terrain with little slope and/or predominantly a north aspect. There is no large fire history and/or low fire occurrence. Fire-fighting generally is highly effective.

Risk Factor 2: Values at Risk

Situation 1(High risk): This situation most closely represents a community in an urban interface setting. The setting contains a high density of homes, businesses, and other facilities that continue across the interface. There is a lack of defensible space where personnel can safely work to provide protection. The community watershed for municipal water is at high risk of being burned compared to other watersheds within that geographic region. There is a high potential for economic loss to the community and likely loss of housing units and/or businesses. There are unique cultural, historical or natural heritage values at risk.

Situation 2(Medium risk): This situation represents an intermix or occluded setting, with scattered areas of high-density homes, summer homes, youth camps, or campgrounds that are less than a mile apart. This situation would cover the presence of lands at risk that are described under State designations such as impaired watersheds, or scenic byways. There is a risk of erosion or flooding in the community if vegetation burns.

Risk Factor 3: Infrastructure

Situation 1(High risk): In these communities, there are narrow dead end roads, steep grades, one way in and/or out routes, no or minimal fire-fighting capacity, no fire hydrants, no surface water, no pressure water systems, no emergency operations group, and no evacuation plan in an area surrounded by a fire-conductive landscape.

Situation 2(Medium risk): In these communities, there are limited access routes, moderate grades, limited water supply, and limited fire-fighting capability in an area surrounded by a scattered fire conducive landscape.

Situation 3(Low risk): In these communities, there are multiple entrances and exits that are well equipped for fire trucks, wide loop roads, fire hydrants, open water sources (pools, creeks, and lakes), an active emergency operations group, and an evacuation plan in place in an area surrounded by a fireproof landscape. The Secretaries will work collaboratively with States, Tribes, local communities, and other interested parties to develop a ranking process to focus fuel reduction activities by identifying communities most at risk. Public input is welcome on the form a ranking system should take, as is input on measures that may be useful to assess the impacts of fuels treatment projects.

In Morrow County, there is some critical infrastructure that provides to the viability of the county but couldn't be classified as a community or part of one either. The MCCWPP LCG decided the infrastructure was important enough to the County that it should be listed in this plan in table 6.2. The same risk factor definitions as used in Table 6.1 were used in Table 6.2 but instead of communities it was infrastructure.

Table 6.2 Infrastructure-at-Risk Matrix

Infrastructure	Risk Factor Fire Behavior Potential	Risk Factor Value at Risk	Risk Factor Infrastructure	Composite Risk Priority
Wind farm	3	2	2	Low/Moderate
Race Track	3	2	2	Low/Moderate
Poplar Plantations	3	2	2	Low/Moderate

Nature Conservancy	2	2	2	Moderate
PGE Coal Fire Plant	3	2	2	Low/Moderate
Willow Cr. Dam	A large catastrophic fire were to occur in the watershed above the dam, there could be large silt deposits against the dam reducing its' ability to function properly			
Heppner City Watershed	A large fire in the forested watershed for the city of Heppner could have detrimental effects on the quality of water being supplied to the City's residents			

The transportation system in Morrow County has lots of variance in quality. Interstate 84, four lane freeway, bisects the north end of the county west to east while throughout the county there are two-lane paved roads/highways connecting communities along with single lane paved roads and maintained gravel roads connecting homesteads to the paved roads/highways. In the more remote areas of the county, mostly on the south end, there are single lane gravel and native surface roads that are frequently used, some of which are maintained year-round while others are only maintained seasonally or not at all. Throughout the county there is risk of wildfire and a need for well maintained and identified transportation routes to evacuate communities in a timely manner. Table 6.3 lists the evacuation routes for Morrow County communities and the improvements that are needed to make them reliable when in need.

Table 6.3 Evacuation Routes

Road #	Road Name	Approx. Miles	Road Description	Road Improvements
670	Sunflower Flat Rd	10.3	Highway 207 to county line.	Pave 10.3 miles.
847	East of Morphine Ln (seasonal)	10.86	Highway 207 to Tupper lane.	Add 3" lift of gravel.
673	Tupper Ln (seasonal)	3.7	Sunflower Flat road to East of Morphine lane.	Clean ditches; add 3" lift of gravel.
703	Board Creek Rd	3.5	Sunflower Flat road to USFS road #033.	Clean ditches as needed.
697	Road Canyon Rd (seasonal)	9.2	Upper Rhea Creek road to USFS road #033.	Add 3" lift of gravel; add culverts as needed and clean ditches.
ODOT	Hwy 207	7	East of Morphine lane- North	
608	Upper Rhea Creek (1.5 miles is a road closure)	24.4	Highway 207 to coalmine Hill/Ditch Creek road.	Open 1.5 mile section of road closure by county court order; add 3" lift of gravel.
799	Ritter Rd (USFS 2104) (seasonal)	10.05	Coalmine Hill/Ditch Creek road to county line.	Add 6" lift of gravel over south 1.5 miles that is currently base rock and dirt.
849	Penland Ln (seasonal)	4.42	Coalmine Hill/Ditch creek road to USFS road #5321.	
USFS 5321	USFS 5321 (seasonal)	3	Penland lane to USFS road #53	
603	Coalmine Hill/Ditch Creek (seasonal)	6.19	Cutsforth park to Ritter road (USFS road #2104)	
678	Willow Creek Rd	20.65	Highway 207 to Cutsforth Park.	
684	Blake Ranch Rd (part seasonal)	6.9	Willow Creek road to Little Butter Creek road.	Add 3" lift of gravel and widen in a few places, add culverts as needed.
USFS 5300	Western Route Rd (seasonal)	23	Coalmine Hill/Ditch creek road to Ukiah.	

798	Shaw Grade (seasonal)	4.25	Willow Creek road to Arbuckle Mountain road.	Add 3" lift of gravel. Rock has been crushed, will put in place summer 2006
793	Little Butter Creek (part seasonal)	10	Highway 74 to Shaw Grade road.	Add 3" lift of gravel to 4.5 mile section, add base rock and gravel to 5.5 mile sec
USFS 5326	USFS road # 5326 (seasonal)	4	Arbuckle Mountain road to USFS road #53	
789	Hanna Arbuckle Rd (part seasonal- 4.49 miles)	9.81	Highway 74 to Blake Ranch road.	Add 3" lift of gravel and improve drainage on 4.49 mile section.
809	Ella Rd	8.8	Immigrant lane to Highway 74.	Widen and pave length restrictive corners (2.5 miles)
596	Tower Rd (south 1.5 miles is PGE private road)	10	I-84 to PGE Coal fire plant.	Chip seal south 2.5 miles
598	Kunze Ln	5.25	Tower road to south main street in Boardman.	Will be reconstructed in 2007-2008
584	South Main (Boardman)	1.2	I-84 to Kunze lane.	Will be reconstructed in 2007-2008
ODOT	I-84	8.5	Tower road to Highway 730	
ODOT	Hwy 730	10	I-84 to county line.	
930	Patterson Ferry Rd	5	Frontage lane to Columbia lane.	
728	Frontage Ln	1	I-84 to Poleline road.	
905	Poleline Rd	5	Frontage lane to Homestead lane.	Pave with hot mix.
559	Homestead Ln	4	Bombing Range road to Poleline road.	Pave with hot mix.
490	Bombing Range (N)	10.5	Highway 730 to Finley Butte landfill road.(Finley butte maintenance section)	Pave with hot mix.
759	Bombing Range (S)	9	Finley Butte landfill road to Highway 207.	Pave south 2.5 miles with hot mix.
630	Juniper Ln	7.77	Bombing Range road to lone-Boardman road.	Widen and pave 3.5 miles on west end.
663	Wells Spring Rd	2.5	Immigrant lane to Juniper lane.	Add 3" lift of gravel, improve drainage.
550	Immigrant Ln	5.5	Wells Spring road to Ella road.	Add 3" lift of gravel.
638	lone-Boardman Rd	5.88	Juniper lane to Ella road.	Widen, improve drainage and pave with hot mix.

MORROW COUNTY COMMUNITY WILDFIRE PROTECTION PLAN ACTION PLAN & PRIORITIES

<i>Actions</i>	<i>Projects</i>	<i>Community</i>	<i>Hazard Rating</i>	<i>Priority</i>	<i>Responsible Agency</i>	<i>STATUS</i>		
Fuel Hazard Reduction								
On Federal Lands	Black Mountain	Cutsforth Park Blake's Addition	Extreme	1	USFS	Funded		
	Penland WUI	Penland Lake	Extreme	1	USFS	Funded		
	Bombing Range Fuels Breaks	Bombing Range Boardman	Moderate	2	DOD	Pending Funding		
	Army Corp property along Columbia River	Fire Management Planning	High	1	ACOE	Identified Meetings Scheduled		
On Non-Federal Lands	Blake's Fuel Reduction	Blake's Addition Cutsforth Park Penland Lake	Extreme	1	ODF	Pending Funding		
	Reeds Mill Fuels Reduction	Reed's Mill Anson Wright Park	High	2	ODF	Pending Funding		
	OHV Park Fuels Reduction	OHV Park	High	2	ODF & County	Pending Funding		

<i>Actions</i>	<i>Projects</i>	<i>Community</i>	<i>Hazard Rating</i>	<i>Priority</i>	<i>Responsible Agency</i>	<i>STATUS</i>
	Water Source Development	Several Communities	High	1	ODF, Landowners, County	Pending Funding
Defensible Space	Blake's Addition	Blake's Addition Cutsforth Park	Extreme	1	ODF & Landowners	Pending Funding
	Penland Lake	Penland Lake	Extreme	1	ODF & Landowners	Pending Funding
	Reeds Mill/ Anson Wright	Reeds Mill Anson Wright	High	2	ODF & Landowners	Pending Funding
	OHV Park	OHV Park	High	1	Morrow County, Landowners	Pending Funding
Safety Corridors	Sunflower Flat	Several Communities	High	2	ODF & FS	Pending Funding
	USFS 53 Rd	Several Communities	High	2	ODF & FS	Pending Funding

<i>Actions</i>	<i>Projects</i>	<i>Community</i>	<i>Hazard Rating</i>	<i>Priority</i>	<i>Responsible Agency</i>	<i>STATUS</i>
<i>Safety Corridors</i>	Willow Cr	Several Communities	High	2	ODF & FS	Pending Funding
	Hwy 207	Several Communities	High	2	ODF & FS	Pending Funding
	USFS 21 Rd	Several Communities	High	2	FS	Pending Funding
<i>Strategic Community Fire Breaks</i>	See Safety Corridors above.	Several Communities				Pending Funding
	Bombing Range Road	Several Communities				Pending Funding
	Highway 74	Several Communities				Pending Funding
	Tower Road	Several Communities				Pending Funding
	Highway 206	Several Communities				Pending Funding
	Interstate 84	Boardman, Irrigon				Pending Funding
	Highway 730	Irrigon,				

<i>Actions</i>	<i>Projects</i>	<i>Community</i>	<i>Hazard Rating</i>	<i>Priority</i>	<i>Responsible Agency</i>	<i>STATUS</i>
		Boardman				Pending Funding
<i>FUTURE Concerns</i>	Unprotected Areas (from BRAC process) and Establish the Necessary Mutual Aid Agreements	Irrigon, Morrow County	n/a	1	Dept. of Defense, US Navy, Fire Chiefs, Army Corps of Engineers, County	Ongoing
<i>Public Information</i>						
Signing	Fire Prevention Signing, seasonally as appropriate	All	n/a	1	All	Ongoing
Media Contacts		All	n/a	1	All	Ongoing
Grade School presentation		All	n/a	1	Fire Prevention Coop	Ongoing
Outdoor School presentations		All	n/a	1	All	Ongoing
Civic Group presentations		All	n/a	1	All	Ongoing
Landowner contacts		All	n/a	1	ODF, Comm. , Rural	Ongoing

<i>Actions</i>	<i>Projects</i>	<i>Community</i>	<i>Hazard Rating</i>	<i>Priority</i>	<i>Responsible Agency</i>	<i>STATUS</i>
Fair displays		All	n/a	1	Fire Prevention Coop	Ongoing
Fire Free training		All	n/a	1	Fire Prevention Coop	Ongoing
Fire Prevention Newspaper Insert		All	n/a	1	Fire Prevention Coop	Ongoing
Structure ignitability		All	n/a	1		
Burning Permits		All	n/a	1	ODF, City, Rural	Ongoing
Notifications of Operation		All	n/a	1	ODF	Ongoing
Building Permit Review		All	n/a	1	County Fire Chiefs	Ongoing
Permitting		All	n/a	1	County Planning	Ongoing
Enforcement		All	n/a	1	ODF, City, Rural, Sheriff, Fire Chief	Ongoing

<i>Actions</i>	<i>Projects</i>	<i>Community</i>	<i>Hazard Rating</i>	<i>Priority</i>	<i>Responsible Agency</i>	<i>STATUS</i>

Priorities: 1 (Highest), 2 (Moderate), 3 (Lower)

Appendix A

MCCWPP Local Coordination Group Participants

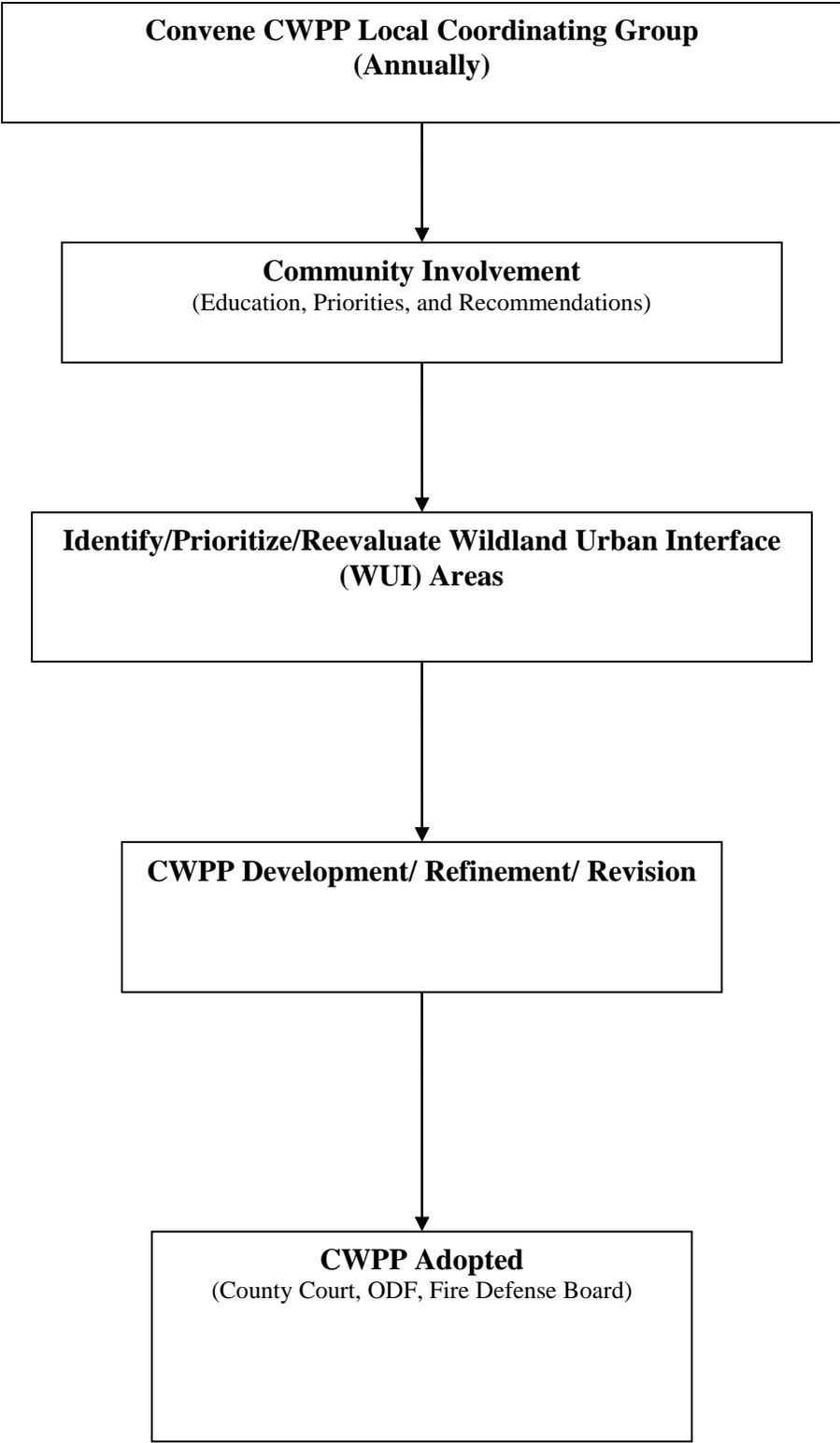
LCG Participants:

Brian Reel	Oregon Department of Forestry – Fossil
Tin Andrade	Oregon Department of Forestry – Prineville
Cindy Kolomechuk	Oregon Department of Forestry – National Fire Plan Coordinator
Dale Boyd	US Forest Service – Heppner Ranger District
Jim Whelan	Area 9 Defense Chief
Mike Bozeman	Hermiston Fire Department
Jason Simmons	Bureau of Land Management – Vale District
Scott English	Bureau of Land Management – Vale District
Leslie Nelson	The Nature Conservancy
Sandi Putman	Morrow County Public Works
Steve Rhea	Heppner Rural Fire Protection District Chief
Steve Myren	Morrow County Sheriff’s Office, Emergency Response Team

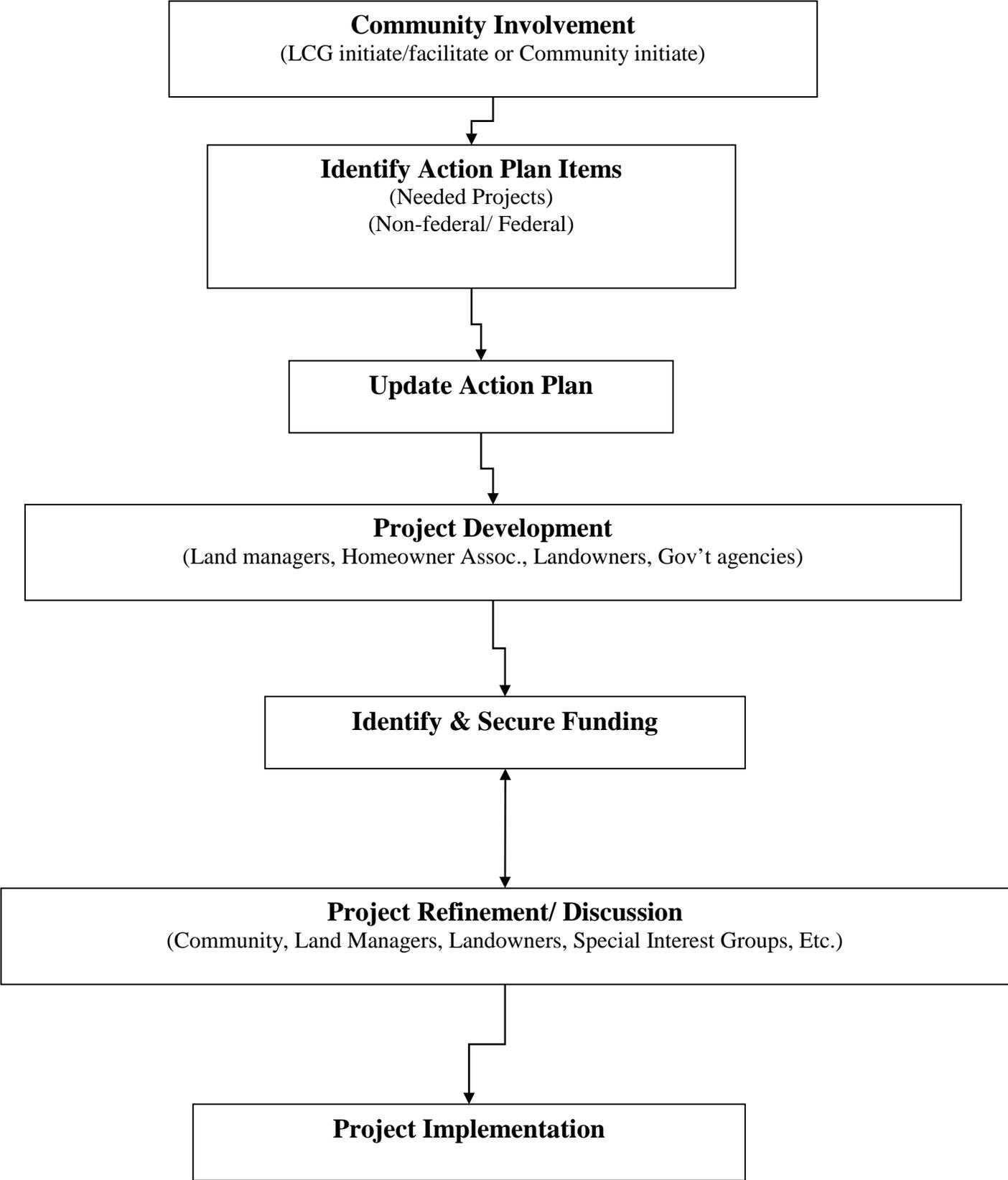
Appendix B

CWPP Process Flowcharts

Morrow County CWPP Adoption/Revision Process



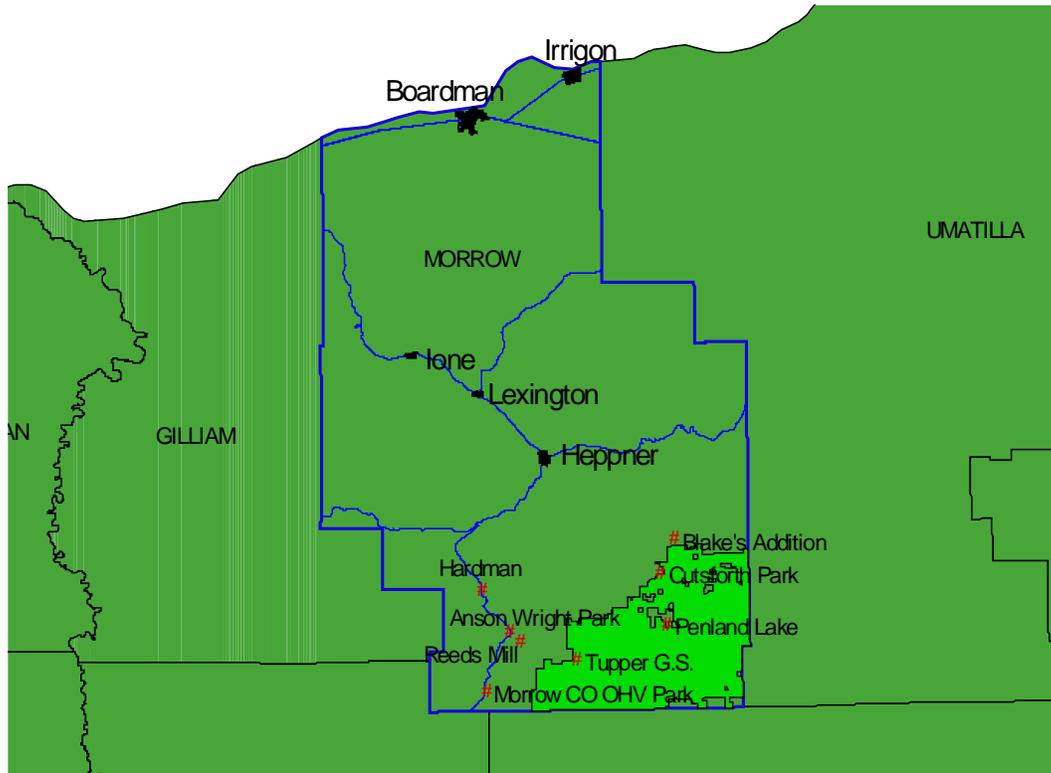
Morrow County CWPP Action Plan Process



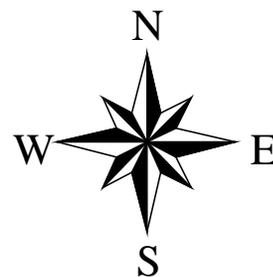
Appendix C

MAPS

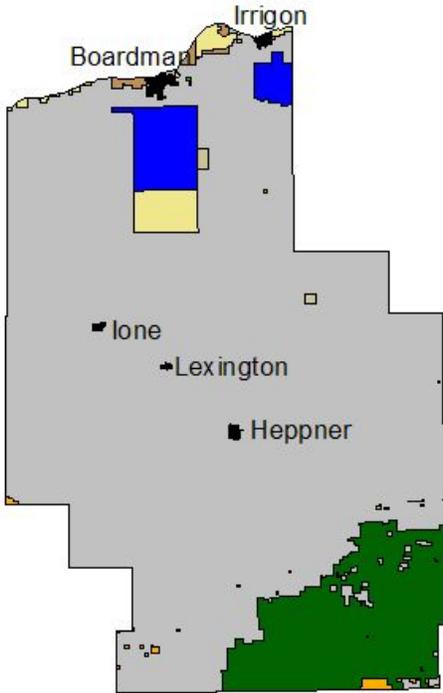
Morrow County Cities and Communities



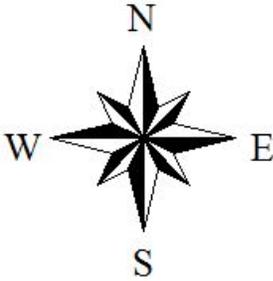
- # Communities
- Cities
- ▬ Highways
- USFS Umatilla NF
- ▭ Morrow County
- County.shp



Morrow County Land Management

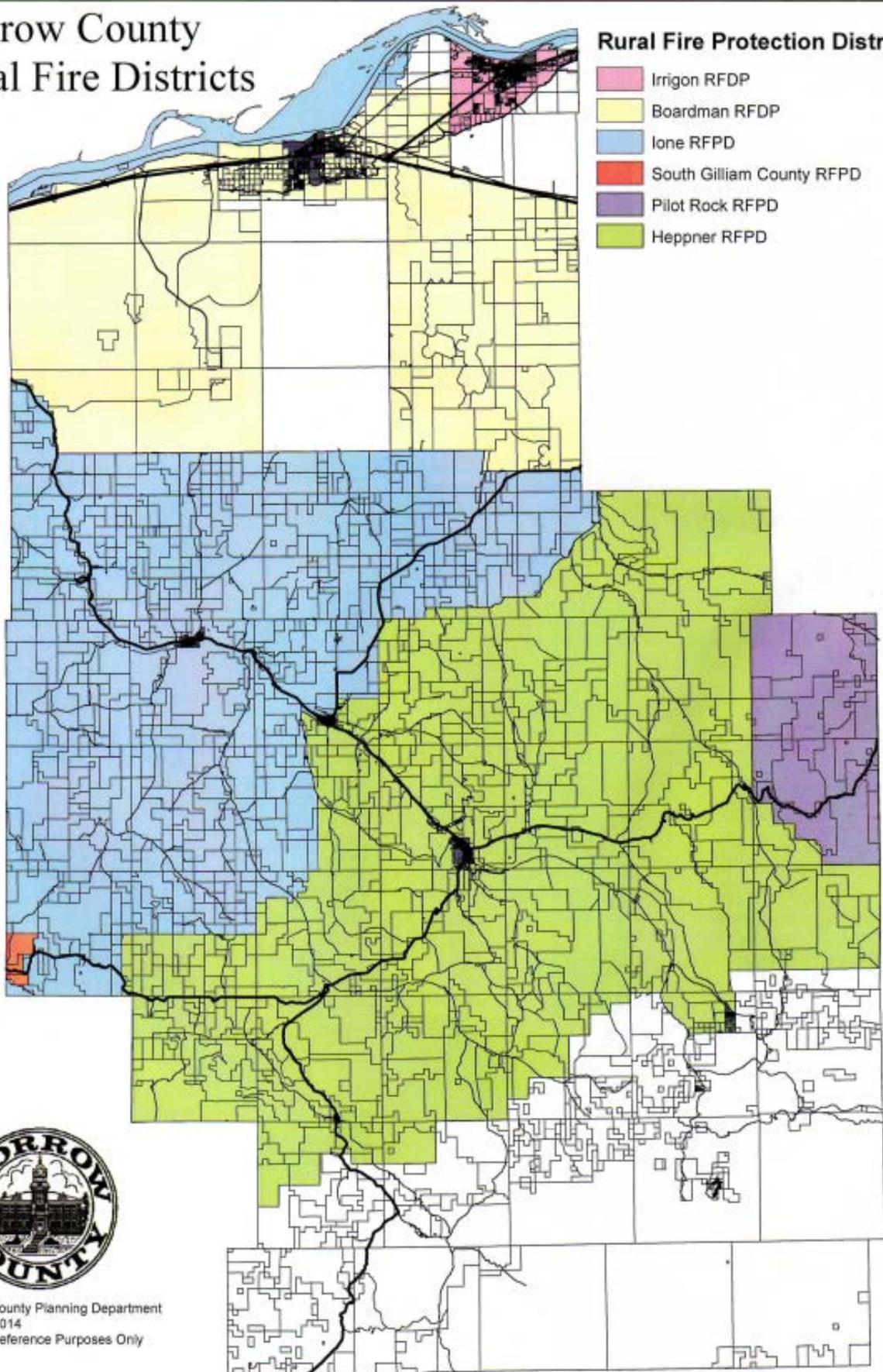


- Cities
- Land Management
 - Bureau of Land Management
 - Bureau of Reclamation
 - Department of Defense
 - Oregon Department of Fish and Wildlife
 - Oregon Department of State Lands
 - Private
 - United States Corps of Engineers
 - United States Department of Agriculture Forest Service
 - United States Fish and Wildlife Service



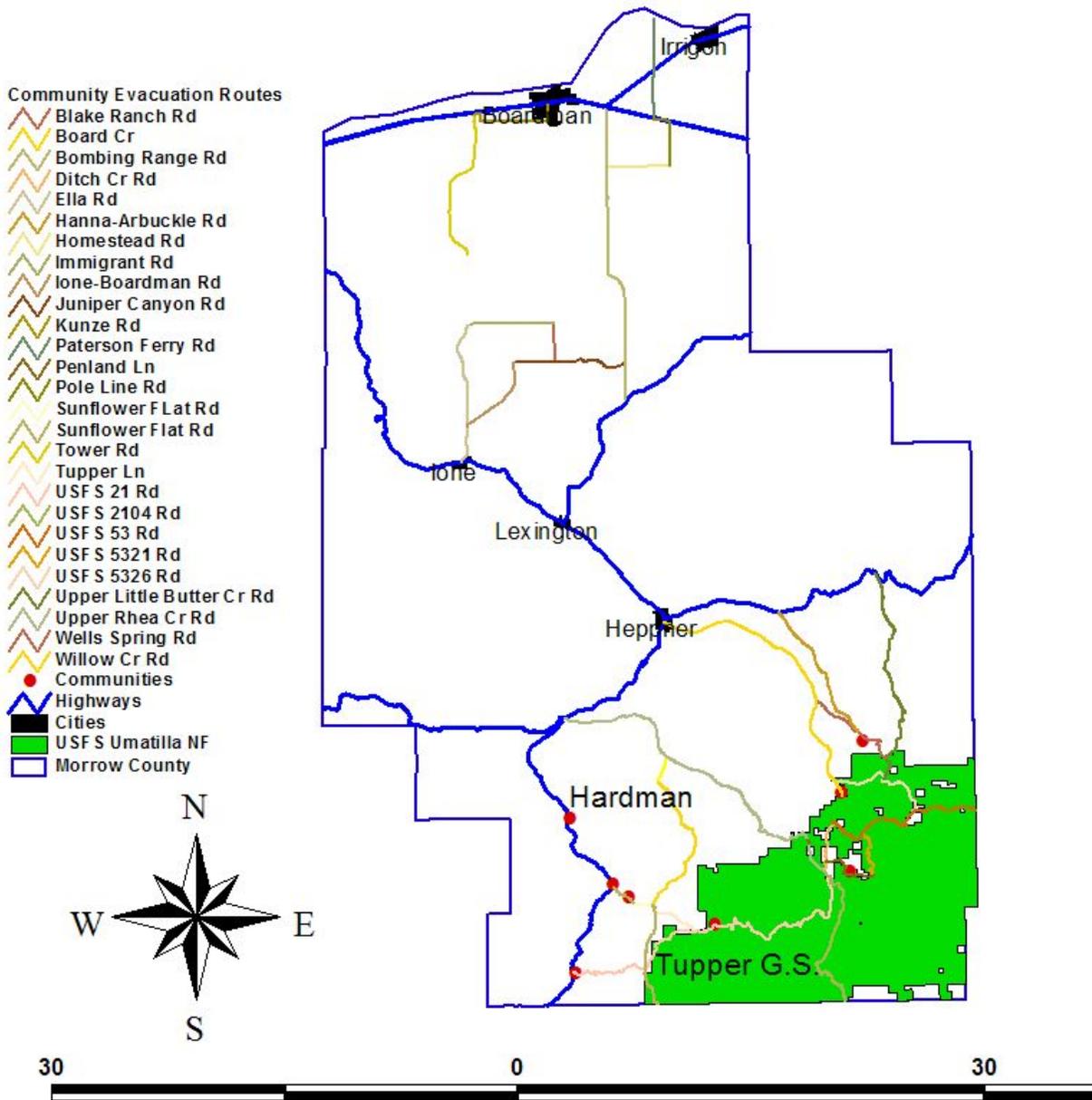
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Morrow County Rural Fire Districts

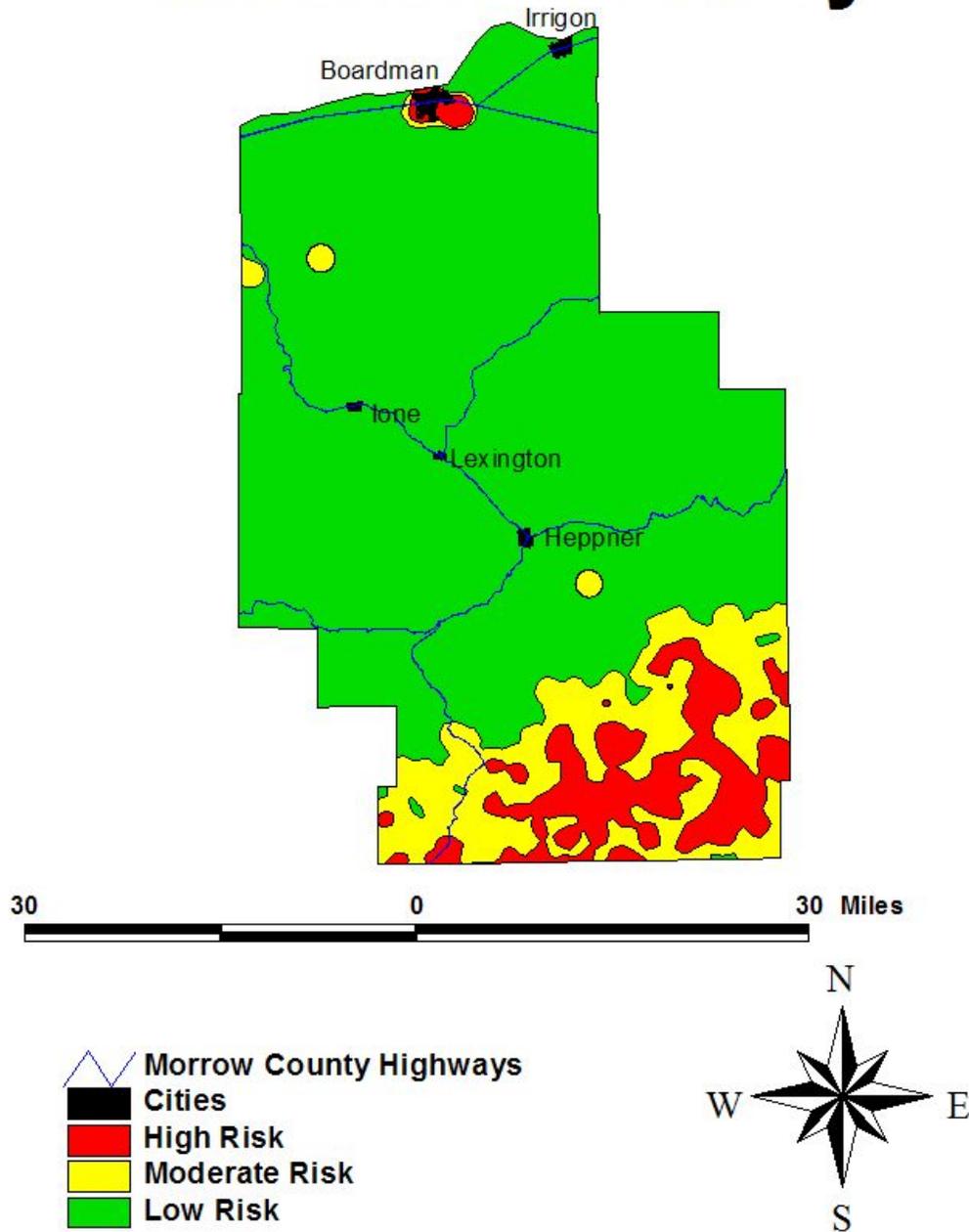


Morrow County Planning Department
October 2014
Map for Reference Purposes Only

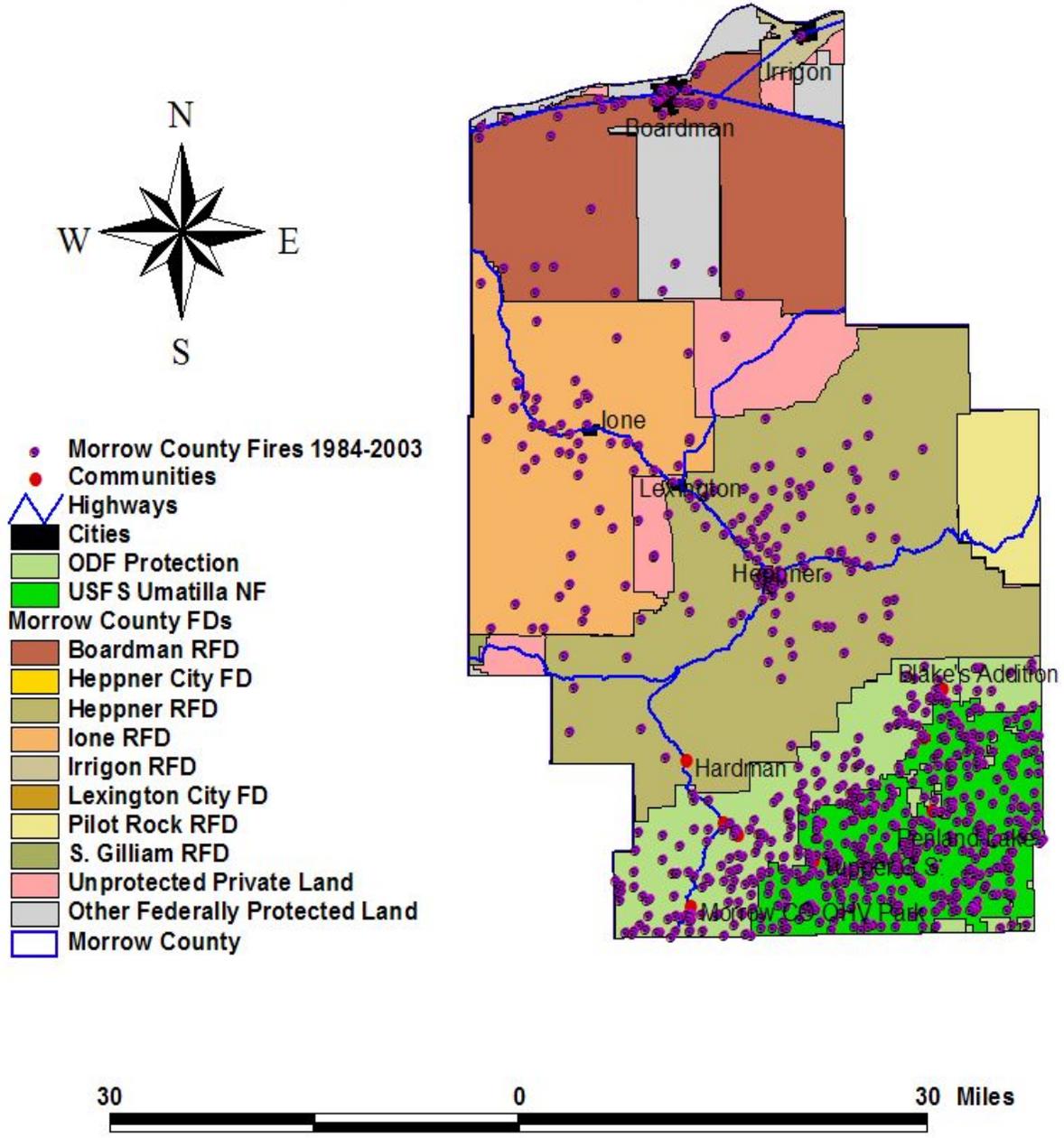
Morrow County Community Evacuation Routes



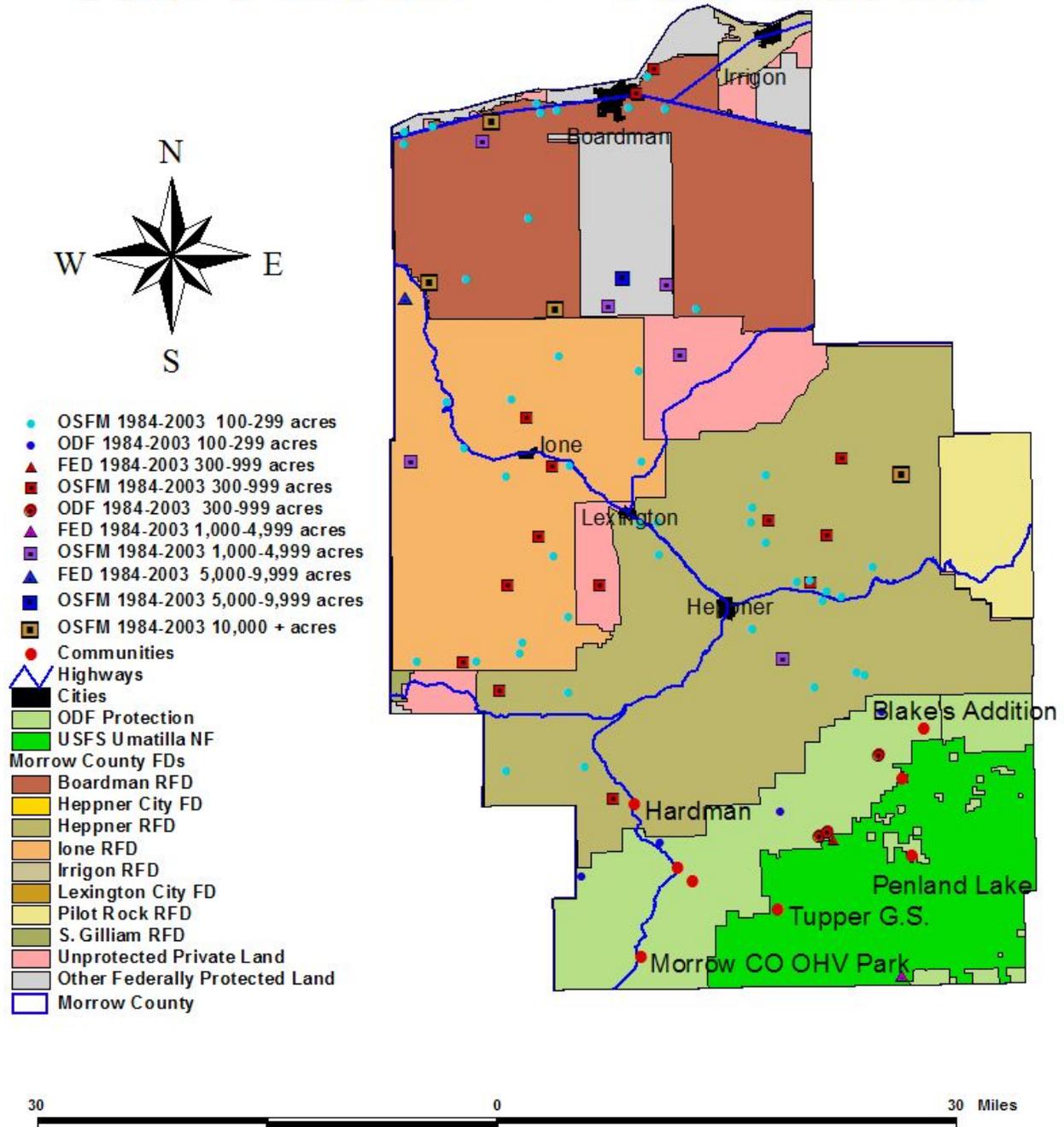
Risk of Fire Occurance in Morrow County

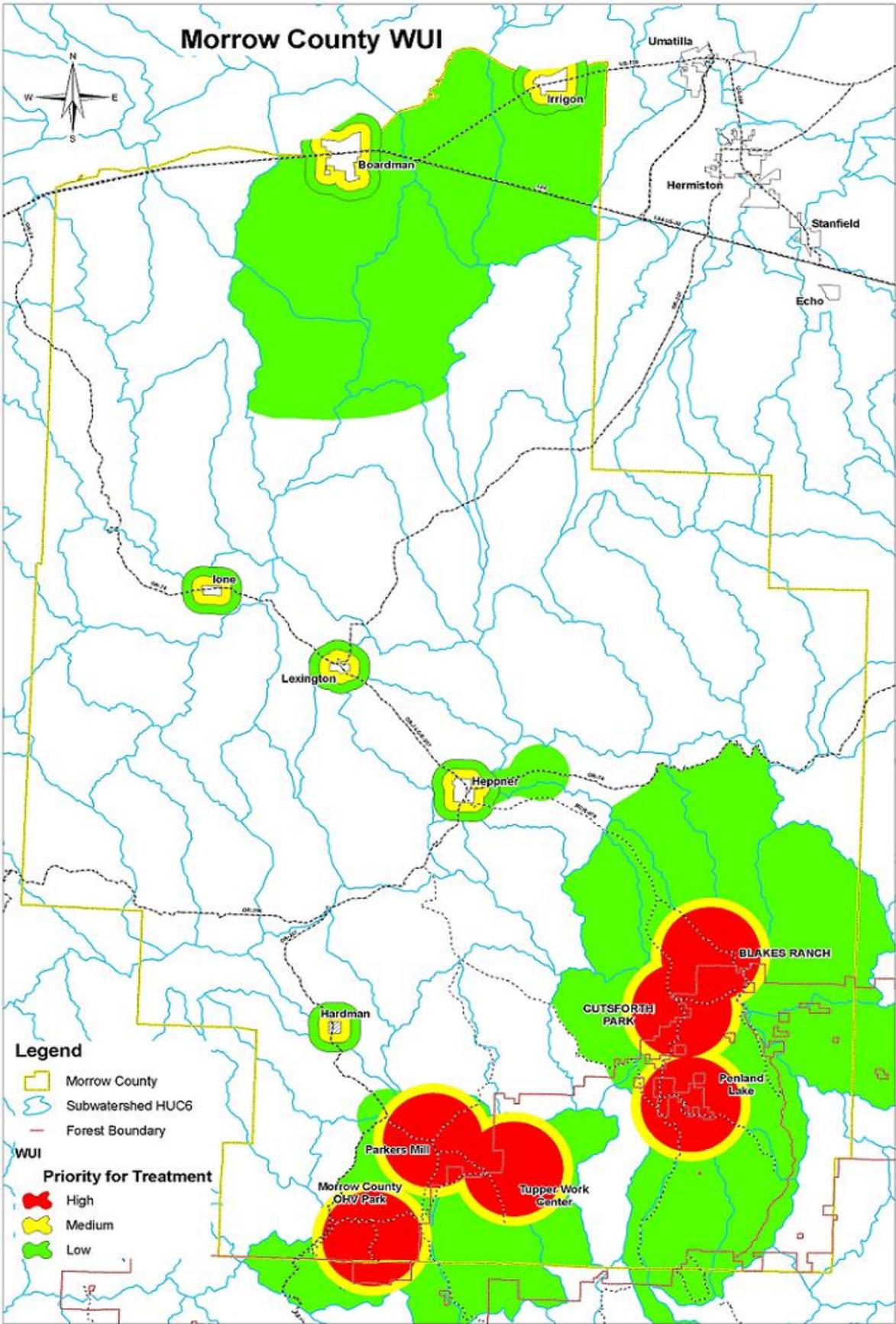


Historic Fires 1984-2003

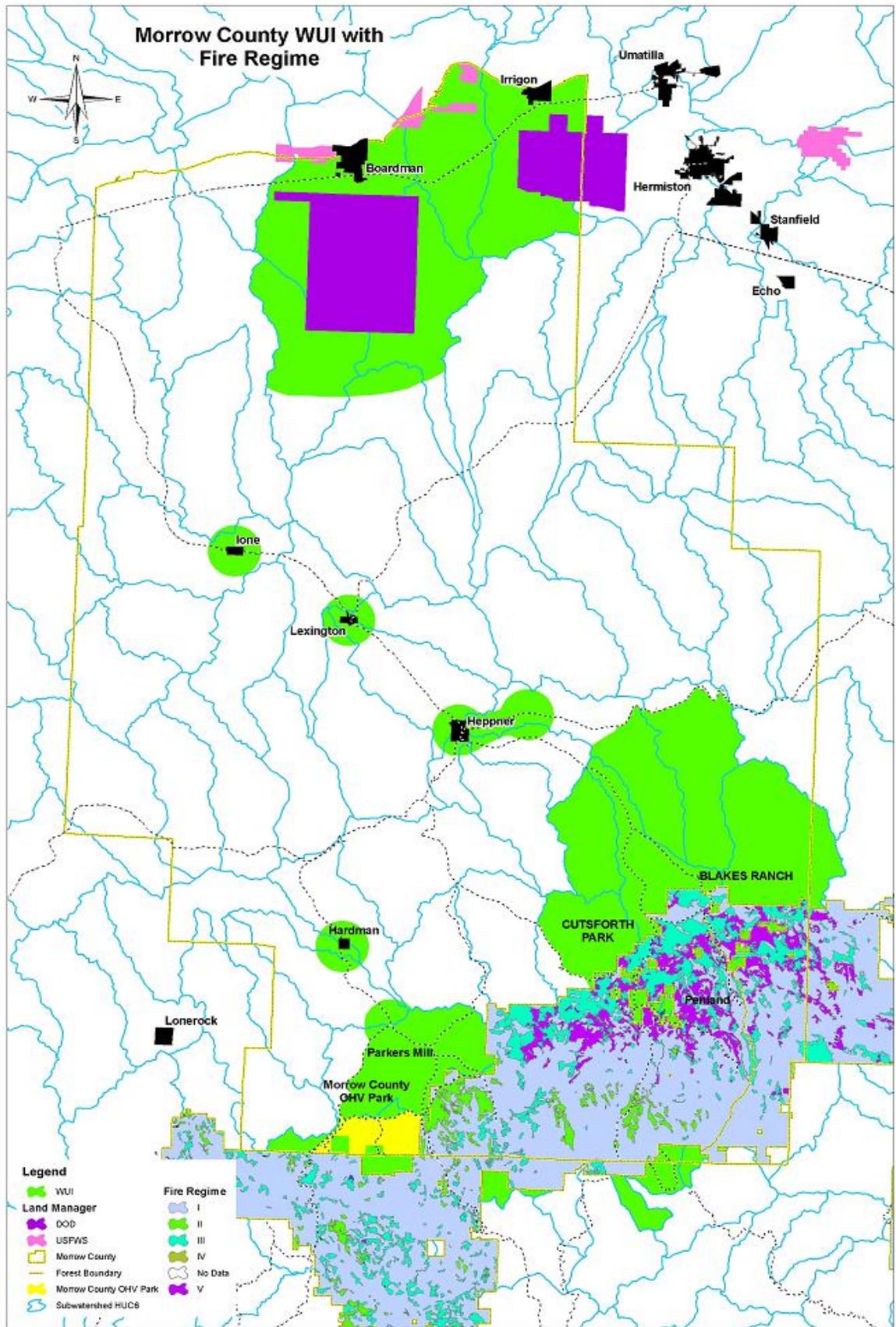


Historic Large Fires 1984-2003 >100 acres

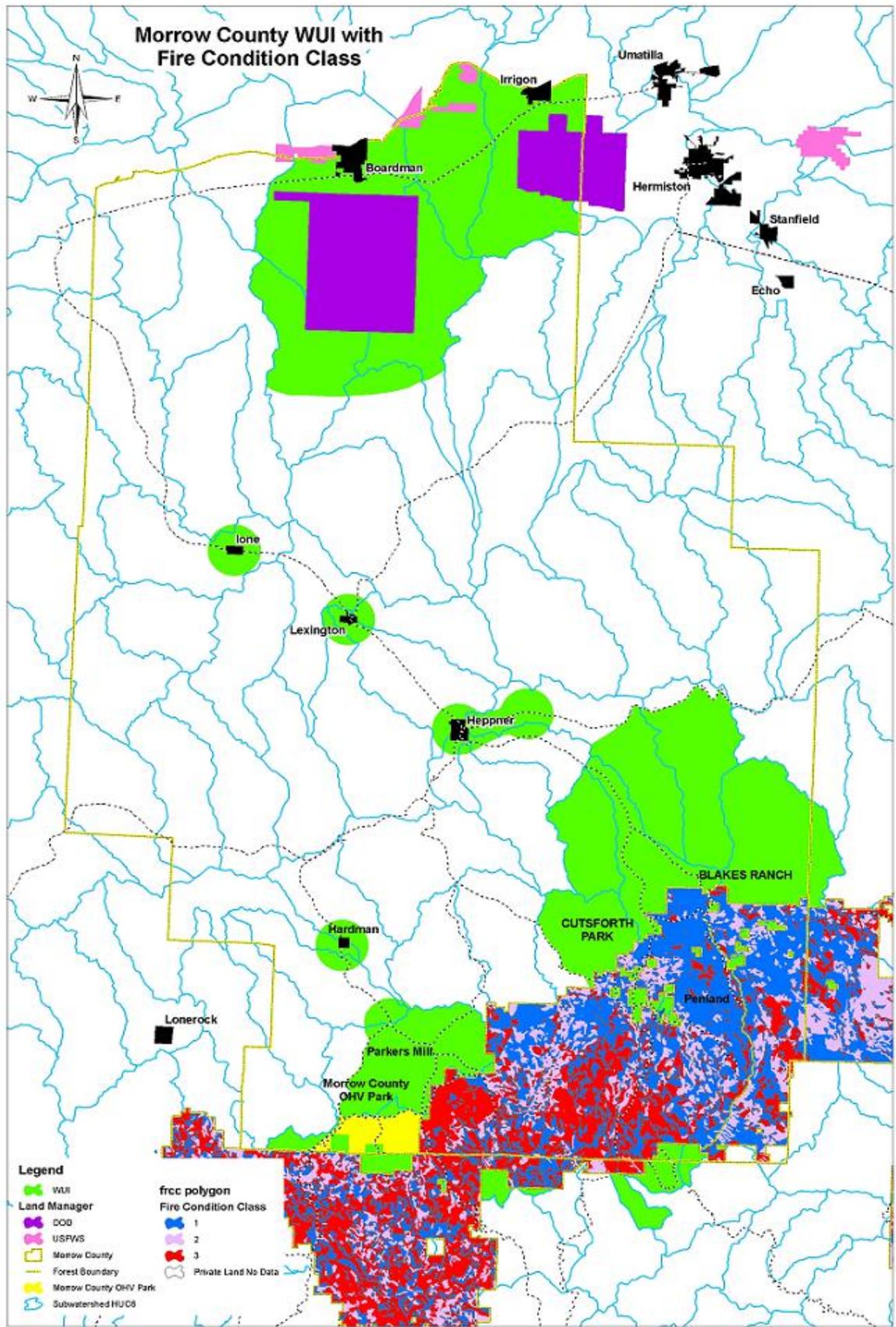




Appendix C
Maps

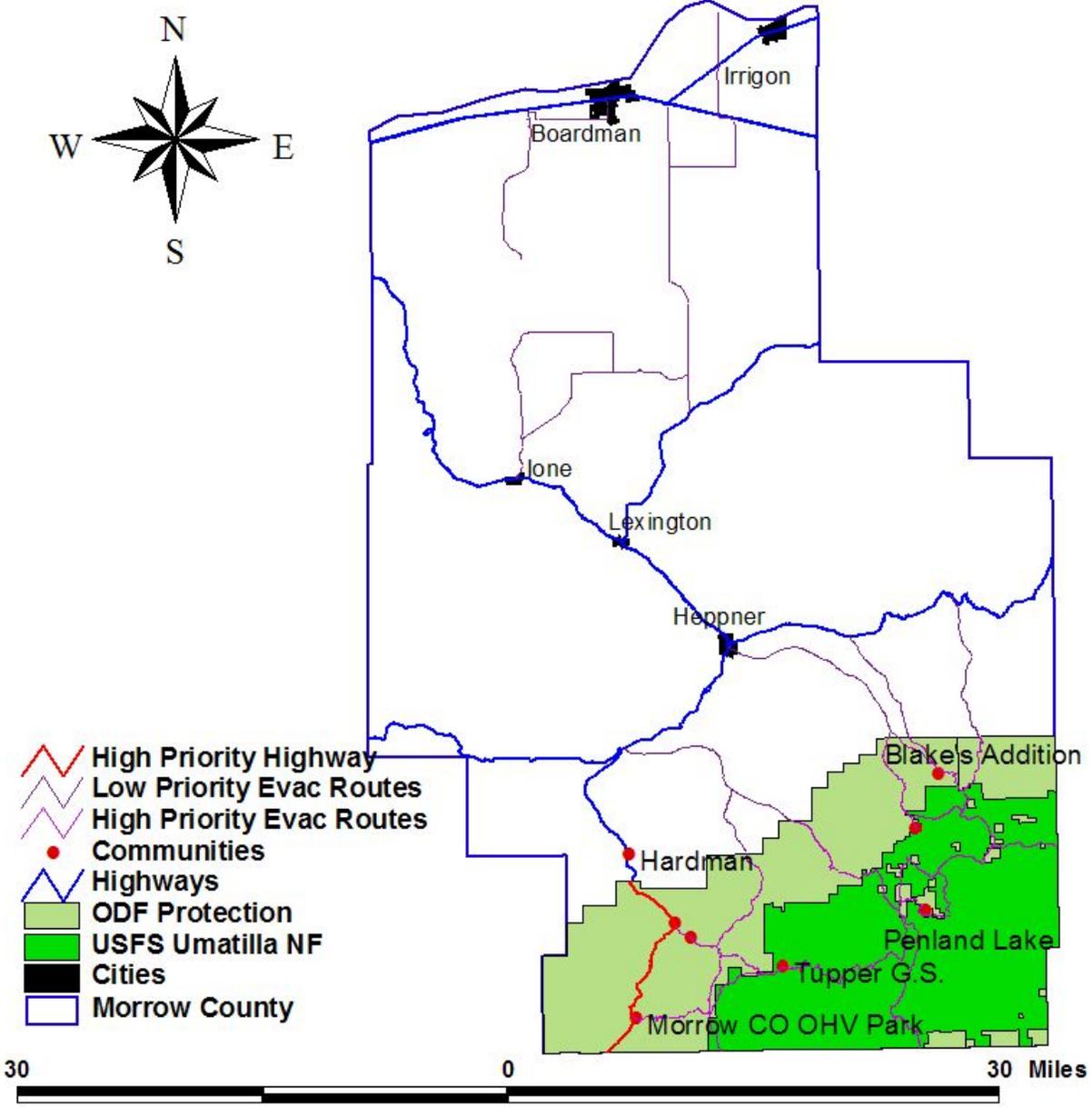


Appendix C
Maps



Appendix C
Maps

Morrow County Prioritized Evac Routes for Fuels Treatment



Appendix D

Glossary

Glossary

Definitions and Policies - This section provides a summary of policies and definitions of Communities at Risk, wildland urban interface, and defensible space.

Wildfire Risk Assessment	
Policy/Source	Definition
Fire Plan	<p>Risk: the potential and frequency for wildfire ignitions (based on past occurrences)</p> <p>Hazard: the conditions that may contribute to wildfire (fuels, slope, aspect, elevation and weather)</p> <p>Values: the people, property, natural resources and other resources that could suffer losses in a wildfire event.</p> <p>Protection Capability: the ability to mitigate losses, prepare for, respond to and suppress wildland and structural fires.</p> <p>Structural Vulnerability: the elements that affect the level of exposure of the hazard to the structure (roof type and building materials, access to the structure, and whether or not there is defensible space or fuels reduction around the structure.)</p>
Communities at Risk	
Policy/Source	Definition
Healthy Forests Restoration Act	<p>Title I – Hazardous Fuel Reduction on Federal Land, SEC. 101. Definitions:</p> <p>(1) AT-RISK COMMUNITY.—The term “at-risk community” means an area—</p> <p>(A) that is comprised of— (i) an interface community as defined in the notice entitled “Wildland Urban Interface Communities Within the Vicinity of Federal Lands That Are at High Risk From Wildfire” issued by the Secretary of Agriculture and the Secretary of the Interior in accordance with title IV of the Department of the Interior and Related Agencies Appropriations Act, 2001 (114 Stat. 1009) (66 Fed. Reg. 753, January 4, 2001); or (ii) a group of homes and other structures with basic infrastructure and services within or adjacent to Federal land;</p> <p>(B) in which conditions are conducive to a large-scale wildland fire disturbance event;</p> <p>(C) for which a significant threat to human life or property exists as a result of a wildland fire disturbance event.</p>
National Association of State Foresters Identifying and Prioritizing Communities at Risk	<p>In June 2003, the National Association of State Foresters developed criteria for identifying and prioritizing communities at risk. Their purpose was to provide national, uniform guidance for implementing the provisions of the “Collaborative Fuels Treatment Program.” The intent was to establish broad, nationally compatible standards for identifying and prioritizing communities at risk, while allowing for maximum flexibility at the state and regional level.</p> <p>NASF defines ‘Community at Risk’ as “a group of people living in the same locality and under the same government” (<i>The American Heritage Dictionary of the English Language</i>, 1969). They also state that ‘a community is considered at risk from wildland fire if it lies within the wildland/urban interface as defined in the federal register (<i>FR Vol. 66, No. 3, Pages 751-154, January 4, 2001</i>).’</p> <p>NASF suggests identifying communities at risk on a state-by-state basis with the involvement of all organizations with wildland fire protection responsibilities (state, local, tribal, and federal) along with other interested cooperators, partners, and stakeholders. They suggest using the 2000 census data (or other suitable means) identify all communities in the state that are in the wildland urban interface and that</p>

	are at risk from wildland fire, regardless of their proximity to federal lands.
Federal Register /Vol.66, No.160 /Friday, August 17, 2001 /Notices	<p>In January 2001, then Agriculture Secretary Dan Glickman and Interior Secretary Bruce Babbitt released a proposed list of communities eligible for enhanced federal wildfire prevention assistance. The preliminary list of over 4000 communities included many that are near public lands managed by the federal government. The initial definition of urban wildland interface and the descriptive categories used in this notice are modified from “A Report to the Council of Western State Foresters—Fire in the West—The Wildland/Urban Interface Fire Problem” dated September 18, 2000. Under this definition, “the urban wildland interface community exists where humans and their development meet or intermix with wildland fuel.”</p> <p>There are three categories of communities that meet this description. Generally, the Federal agencies will focus on communities that are described under categories 1 and 2. For purposes of applying these categories and the subsequent criteria for evaluating risk to individual communities, a structure is understood to be either a residence or a business facility, including Federal, State, and local government facilities. Structures do not include small improvements such as fences and wildlife watering devices.</p> <p>Category 1. Interface Community: The Interface Community exists where structures directly abut wildland fuels. There is a clear line of demarcation between residential, business, and public structures and wildland fuels. Wildland fuels do not generally continue into the developed area. The development density for an interface community is usually 3 or more structures per acre, with shared municipal services. Fire protection is generally provided by a local government fire department with the responsibility to protect the structure from both an interior fire and an advancing wildland fire. An alternative definition of the interface community emphasizes a population density of 250 or more people per square mile.</p> <p>Category 2. Intermix Community: The Intermix Community exists where structures are scattered throughout a wildland area. There is no clear line of demarcation; wildland fuels are continuous outside of and within the developed area. The development density in the intermix ranges from structures very close together to one structure per 40 acres. Fire protection districts funded by various taxing authorities normally provide life and property fire protection and may also have wildland fire protection responsibilities. An alternative definition of intermix community emphasizes a population density of between 28–250 people per square mile.</p> <p>Category 3. Occluded Community: The Occluded Community generally exists in a situation, often within a city, where structures abut an island of wildland fuels (e.g., park or open space). There is a clear line of demarcation between structures and wildland fuels. The development density for an occluded community is usually similar to those found in the interface community, but the occluded area is usually less than 1,000 acres in size. Fire protection is normally provided by local government fire depts.</p>
A Definition of Community, James A. Kent / Kevin Preister	“A community is a geographic place that is characterized by natural systems such as watersheds, cultural attachment and human geographic boundaries. Physical, biological, social, cultural, and economic forces create natural boundaries that distinguish one community from another. The importance is in recognizing the unique beliefs, traditions, and stories that tie people to a specific place, to land and to social/kinship networks. It is a naturally defined human geographic area within

	<p>which humans and nature rely on shared resources. People from outside this place can effectively contribute to its stewardship by providing relevant information and/or participating through relating their own values associated with geographic place. Community is defined by the informal systems and to the degree the formal systems are tied to the informal it becomes part of a community definition. Both have a distinct function. Informal systems are horizontal. They maintain culture, take care of people and are concerned with survival. They thrive on openness, honesty, and the idea that people want to do what is right for each other and the broader society. Formal systems are vertical and they serve centralized political, ideological, and economic functions. They contribute resources and legal structure to community change. Formal meetings alone do not constitute community communication or decision making functions.” http://www.ntc.blm.gov/partner/community.html</p>
Firewise Definition of Community	<p>“According to Webster's dictionary, a community is ‘a body of people living in one place or district...and considered as a whole’ or ‘a group of people living together and having interests, work, etc. in common’. Homeowner associations and similar entities are the most appropriate venue for the Firewise Communities/USA recognition program. These smaller areas within the wildland/urban interface offer the best opportunities for active individual homeowner commitment and participation, which are vital to achieving and maintaining recognition status.” http://www.firewise.org/usa/</p>
Executive Order NO. 04- 04 Oregon Office of Rural Policy and Rural Policy Advisory Committee	<p>Office of Rural Policy and Rural Policy Advisory Committee</p> <p><i>-Frontier Rural</i> – A geographic area that is at least 75 miles by road from a community of less than 2000 individuals. It is characterized by an absence of densely populated areas, small communities, individuals working in their communities, an economy dominated by natural resources and agricultural activities, and a few paved streets or roads.</p> <p><i>-Isolated Rural</i> – A geographic area that is at least 100 miles by road from a community of 3000 or more individuals. It is characterized by low population density (fewer than five people per square mile), an economy of natural resources and agricultural activity, large areas of land owned by the state or federal government and predominately unpaved streets.</p> <p><i>-Rural</i> – A geographic area that is at least 30 miles by road from an urban community (50,000 or more). It is characterized by some commercial business, two or fewer densely populated areas in a county, an economy changing from a natural resource base to more commercial interests and reasonable, but not immediate access to health care.</p> <p><i>-Urban Rural</i> – A geographic area that is at least 10 miles by road from an urban community. It is characterized by many individuals community to an urban area to work or shop, an economy with few natural resource and agricultural activities, easy and immediate access to health care services and numerous paved streets and roads.</p> <p>http://governor.oregon.gov/Gov/pdf/ExecutiveOrder04-04.pdf</p>
	Wildland Urban Interface
Policy/Source	Definition
Federal Register /Vol.66, No.160 /Friday, August 17,2001 /Notices	<p>The Federal Register states, "the urban-wildland interface community exists where humans and their development meet or intermix with wildland fuel." This definition is found in the Federal Register Vol.66, Thursday, January 4, 2001, Notices; and in "Fire in the West, the Wildland/Urban Interface Fire Problem", A Report for the Western States Fire Managers, September 18, 2000.</p>

10-Year Comprehensive Strategy	A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-Year Comprehensive Strategy (August 2001) “The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels” (Glossary of Wildland Fire Terminology, 1996). http://www.fireplan.gov/content/reports/?LanguageID=1
Senate Bill 360:	Senate Bill 360: Forestland Urban Interface Protection Act of 1997. Forestland Urban Interface 477.015 Definitions. (1) As used in ORS 477.015 to 477.061, unless the context otherwise requires, "forestland-urban interface" means a geographic area of forestland inside a forest protection district where there exists a concentration of structures in an urban or suburban setting.
NFPA 1144	NFPA 1144: Standard for Protection of Life and Property from Wildfire 2002 Edition Wildland/Urban Interface is an area where improved property and wildland fuels meet at a well-defined boundary. Wildland/urban intermix is an area where improved property and wildland fuels meet with no clearly defined boundary. http://www.nfpa.org/catalog/home/OnlineAccess/1144/1144.asp
Defensible/Survivable Space	
Policy/Source	Definition
Home Ignition Zones – “Wildland-Urban Fire—A different approach”	Recent research focuses on indications that the potential for home ignitions during wildfires including those of high intensity principally depends on a home’s fuel characteristics and the heat sources within 100-200 feet adjacent to a home (Cohen 1995; Cohen 2000; Cohen and Butler 1998). This relatively limited area that determines home ignition potential can be called the <i>home ignition zone</i> . http://firelab.org/fbp/fbresearch/wui/pubs.htm (Jack D. Cohen)
NFPA 1144	NFPA Publication 1411 defines defensible space as “An area as defined by the AHJ (typically with a width of 9.14 m (30 ft) or more) between an improved property and a potential wildland fire where combustible materials and vegetation have been removed or modified to reduce the potential for fire on improved property spreading to wildland fuels or to provide a safe working area for fire fighters protecting life and improved property from wildland fire.
OAR 629-044-1085: Fuel Break Requirements	(1) The purpose of a fuel break is to: (a) Slow the rate of spread and the intensity of an advancing wildfire; and (b) Create an area in which fire suppression operations may more safely occur. (2) A fuel break shall be a natural or a human-made area where material capable of allowing a wildfire to spread: (a) Does not exist; or (b) Has been cleared, modified, or treated in such a way that the rate of spread and the intensity of an advancing wildfire will be significantly reduced. (3) A primary fuel break shall be comprised of one or more of the following: (a) An area of substantially non-flammable ground cover. Examples include asphalt, bare soil, clover, concrete, green grass, ivy, mulches, rock, succulent ground cover, or wildflowers. (b) An area of dry grass which is maintained to an average height of less than four inches. (c) An area of cut grass, leaves, needles, twigs, and other similar flammable materials, provided such materials do not create a continuous fuel bed and are in compliance with the intent of subsections 1 and 2 of this rule. (d) An area of single specimens or isolated groupings of ornamental shrubbery, native trees, or other plants, provided they are: (A) Maintained in a green condition; (B) Maintained substantially free of dead plant material; (C) Maintained free of ladder fuel; (D) Arranged and maintained in such a way that minimizes the possibility a wildfire can spread to adjacent vegetation; and (E) In compliance with the intent of subsections (1) and (2) of this rule.

	<p>(4) A secondary fuel break shall be comprised of single specimens or isolated groupings of ornamental shrubbery, native trees, or other plants, provided they are: (a) Maintained in a green condition; (b) Maintained substantially free of dead plant material; (c) Maintained free of ladder fuel; (d) Arranged and maintained in such a way that minimizes the possibility a wildfire can spread to adjacent vegetation; and (e) In compliance with the intent of subsections 1 and 2 of this rule. http://arcweb.sos.state.or.us/rules/1102_Bulletin/1102_ch629_bulletin.html</p>																		
<p>Senate Bill 360: Forestland Urban Interface Protection Act of 1997. Fuel Break Distance</p>	<table border="1"> <thead> <tr> <th></th> <th colspan="2">Total Fuel Break Distance</th> </tr> <tr> <th><u>Classification</u></th> <th><u>Fire Resistant Roofing</u></th> <th><u>Non-Fire Resistant Roofing</u></th> </tr> </thead> <tbody> <tr> <td>LOW</td> <td>No Requirement</td> <td>No Requirement</td> </tr> <tr> <td>MODERATE</td> <td>30 feet</td> <td>30 feet</td> </tr> <tr> <td>HIGH</td> <td>30 feet</td> <td>50 feet</td> </tr> <tr> <td>Extreme & High Density Extreme</td> <td>50 feet</td> <td>100 feet</td> </tr> </tbody> </table>		Total Fuel Break Distance		<u>Classification</u>	<u>Fire Resistant Roofing</u>	<u>Non-Fire Resistant Roofing</u>	LOW	No Requirement	No Requirement	MODERATE	30 feet	30 feet	HIGH	30 feet	50 feet	Extreme & High Density Extreme	50 feet	100 feet
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HIGH	30 feet	50 feet																	
Extreme & High Density Extreme	50 feet	100 feet																	
<p>Is Your Home Protected from Wildfire Disaster? A Homeowner's Guide to Wildfire Retrofit, Institute for Business and Home Safety</p>	<p>A survivable space is an area of reduced fuels between your home and the untouched wildland. This provides enough distance between the home and a wildfire to ensure that the home can survive without extensive effort from either you or the fire department. One of the easiest ways to establish a survivable space is to use the zone concept.</p> <p>Zone 1: Establish a well-irrigated area around your home. In a low hazard area, it should extend a minimum of 30 feet from your home on all sides. As your hazard risk increases, a clearance of between 50 and 100 feet or more may be necessary, especially on any downhill sides of the lot. Plantings should be limited to carefully spaced indigenous species.</p> <p>Zone 2: Place low-growing plants, shrubs and carefully spaced trees in this area. Maintain a reduced amount of vegetation. Your irrigation system should also extend into this area. Trees should be at least 10 feet apart, and all dead or dying limbs should be trimmed. For trees taller than 18 feet, prune lower branches within six feet of the ground. No tree limbs should come within 10 feet of your home.</p> <p>Zone 3: This furthest zone from your home is a slightly modified natural area. Thin selected trees and remove highly flammable vegetation such as dead or dying trees and shrubs. How far Zones 2 and 3 extend depends upon your risk and your property's boundaries. In a low hazard area, these two zones should extend another 20 feet or so beyond the 30 feet in Zone 1. This creates a modified landscape of over 50 feet total. In a moderate hazard area, these two zones should extend at least another 50 feet beyond the 50 feet in Zone 1. This would create a modified landscape of over 100 feet total. In a high hazard area, these two zones should extend at least another 100 feet beyond the 100 feet in Zone 1. This would create a modified landscape of over 200 feet total. http://www.ibhs.org/publications/view.asp?id=130</p>																		
<p>Living with Fire: A Guide for the Homeowner</p>	<p>This guide, distributed in Oregon through the Pacific Northwest Wildfire Coordinating Group, provides information on creating effective defensible space and guidelines illustrated below.</p> <p style="text-align: center;">Defensible Space</p>																		

	Recommended Distances – Steepness of Slope-----		
	Flat to Gently Sloping 0 to 20%	Moderately Steep 21% to 40%	Very Steep 40+%
Grass: Wildland grasses (such as cheatgrass, weeds, and widely scattered shrubs with grass understory)	30 feet	100 feet	100 feet
Shrubs: Includes shrub dominant areas	100 feet	200 feet	200 feet
Trees: Includes forested areas. If substantial grass or shrub understory is present use those values shown above	30 feet	100 feet	200 feet
Fire Free	A buffer zone -- a minimum 30-foot fire-resistive area around a house that reduces the risk of a wildfire from starting or spreading to the home. Although a 30-foot distance is standard, additional clearance as great as 100 feet may be necessary as the slope of your lot increases. http://www.firefree.org/ffreenew/subpages/gitz.htm .		

Other Definitions

Crown Fire: Fire sustained in the over story or a surface fire with high fire line intensity leading to significant, scorch related over story death.

Fire breaks---Man made, which include defensible space through fuel reduction, roads and natural breaks such as creek beds, rock faces, etc.

Fuel loading: How much fuel is available to feed the fire? Other loading factors are size, compactness and fuel moisture.

Fuels: Fuel is that combustible material available to feed a fire. Fuel is classified by volume and type. Volume is described in terms of “fuel loading” or the amount of vegetative fuel. The type of fuel, trees. Brush, grass, etc.

Season Ending Event: The data of the weather event after which fires cease to pose a significant problem, in terms of spread, to fire managers.

Surface Fire: Burning with low intensity in the forest understory with occasional individual tree torching or scorches related mortality.

Topography: This is the overall layout of the land: steepness of slope and aspect.

Vehicle access: Is access in and out possible for the type of initial attack or protection vehicle needed including space for more than one vehicle, turn-around space, and appropriate bridges and gates capable of accommodating firefighting vehicles.

Water sources: Many rural residential areas lack large water storage or pumping facilities, putting a higher demand on firefighting resources which have large water tank capabilities.

Weather: Major concerns are: yearly moisture accumulations, humidity, wind, temperatures and lightning frequency/occurrence.

Acronyms

BLM: Bureau of Land Management
CFR: Code of Federal Regulations
CWPP: Community Wildfire Protection Plan (Healthy Forests Restoration Act)
DEQ: Department of Environmental Quality
DOI: Department of Interior
EPA: Environmental Protection Agency
FEMA: Federal Emergency Management Agency
FS: Forest Service
GIS: Geographic Information System
HFRA: Healthy Forest Restoration Act
HFI: Healthy Forest Initiative
HUC: Hydrologic Unit Code
ICS: Incident Command System
NFP: National Fire Plan and 10-Year Comprehensive Strategy
ODF: Oregon Department of Forestry
ODOT: Oregon Department of Transportation
OEM: Office of Emergency Management (State)
OSP: Oregon State Police
T & E: Threatened and Endangered Species
USDA: United States Department of Agriculture
USDI: United States Department of Interior
WFSA : Wildland Fire Situation Analysis

Appendix E

“Get in the Zone”

Fire Free Program

Ten Steps to “Get in the Zone!” – FireFree Program – <http://www.firefree.org>

1. Define your defensible space.

Defensible space is a buffer zone, a minimum 30-foot fire-resistive area around your house that reduces the risk of a wildfire from starting or spreading to your home. Formed by following the critical steps outlined below, defensible space depends on clearing flammable material away from your home and replacing it with fire-resistive vegetation. Although a 30-foot distance is standard, additional clearance as great as 100 feet may be necessary as the slope of your lot increases. Defensible space not only helps protect your home in the critical minutes it takes a fire to pass, it also gives firefighters an area to work in. During a large-scale fire, when many homes are at risk, firefighters must focus on homes they can safely defend.

2. Reduce flammable vegetation, trees and brush around your home.

When needed, replace flammable landscaping with fire-resistive counterparts. Choose plants with loose branch habits, non-resinous woody material, high moisture content in leaves, and little seasonal accumulation of dead vegetation. Ask your local home and garden center about which varieties possess these and other fire-resistive traits.

3. Remove or prune trees.

If you live in a wooded area, reduce the density of surrounding forest by removing or thinning overcrowded or small-diameter trees. Check with local agencies for guidelines on tree removal before clearing or thinning your property. Be sure to prune low-hanging branches to keep a ground fire from climbing into upper branches. Limbing up these "ladder fuels" cuts the chances of a ground fire climbing into tree canopies.

4. Cut grass and weeds regularly.

Fire spreads rapidly in dry grass and weeds. Mow grasses and other low vegetation and keep them well-watered, especially during periods of high fire danger.

5. Relocate wood piles and leftover building materials.

Stack all wood, building debris and other burnable materials at least 30 feet from your home and other buildings. Then clear away flammable vegetation within 10 feet of wood/debris piles as an additional safeguard against the spread of wildfire.

6. Keep it clean. (Your roof and yard, we mean!)

Clear pine needles, leaves and debris from your roof, gutters and yard to eliminate an ignition source for tinder-dry vegetation. Remove dead limbs and branches within 10 feet of your chimney and deck. Tidying-up is especially important during the hot, arid months of fire season when a single spark can lead to an inferno.

7. Signs, addresses and access.

Easy-to-read road signs and address numbers that are visible from the road allow firefighters to find your home quickly during a wildfire or other emergency. Safe, easy access to your property includes two-way roads that can accommodate emergency vehicles and give them space to turn around. Bridges should support the weight of emergency vehicles. Driveways should also be trimmed of peripheral vegetation to allow emergency equipment to reach your house. Contact your local fire agency for recommendations on access and signage.

8. Rate your roof.

Your roof is the most vulnerable part of your house in a wildfire. If you have a wood shake roof, consider treatment or replacement to make it more fire-resistive. If you have a fireplace or woodstove, install an approved spark arrestor on your chimney to prevent sparks from reaching

your roof or flammable vegetation.

9. Recycle yard debris and branches.

Check into alternative disposal methods like composting or recycling. Burning may be restricted or not allowed in your community, and should only be used as a last resort. Always contact your local fire agency for current burning regulations before striking a match!

10. What to do when a wildfire strikes.

Monitor your local radio and television stations for fire reports and evacuation procedures and centers. Keep an emergency checklist handy and prepare to evacuate if your neighborhood is threatened. Proper preparation includes closing all windows and doors, arranging garden hoses so they can reach any area of your house, and packing your car for quick departure.

Protecting Your Home from Wildland Fire

<http://www.nifc.gov/preved/protecthome.html>

Every year many families unnecessarily lose their homes and possessions to wildland fire. These losses can be minimized if homeowners take the time to become aware of safety measures to help protect their homes and complete some effective actions.

Use Fire Resistant Building Material - "The Best Thing That You Can Do"

The roof and exterior structure of your dwelling should be constructed of non-combustible or fire resistant materials such as fire resistant roofing materials, tile, slate, sheet iron, aluminum, brick, or stone. Wood siding, cedar shakes, exterior wood paneling, and other highly combustible materials should be treated with fire retardant chemicals.

Maintain a Survivable Space - "Things you can do today"

- Clean roof surfaces and gutters of pine needs, leaves, branches, etc., regularly to avoid accumulation of flammable materials.
- Remove portions of any tree extending within 10 feet of the flue opening of any stove or chimney.
- Maintain a screen constructed of non-flammable material over the flue opening of every chimney or stovepipe. Mesh openings of the screen should not exceed 1/2 inch.
- Landscape vegetation should be spaced so that fire can not be carried to the structure or surrounding vegetation.
- Remove branches from trees to height of 15 feet.
- A fuel break should be maintained around all structures.
- Dispose of stove or fireplace ashes and charcoal briquettes only after soaking them in a metal pail of water.
- Store gasoline in an approved safety can away from occupied buildings.
- Propane tanks should be far enough away from buildings for valves to be shut off in case of fire. Keep area clear of flammable vegetation.
- All combustibles such as firewood, picnic tables, boats, etc. should be kept away from structures.
- Garden hose should be connected to outlet.
- Addressing should be indicated at all intersections and on structures.
- All roads and driveways should be at least 16 feet in width.
- Have fire tools handy such as: ladder long enough to reach the roof, shovel, rake and bucket for water.
- Each home should have at least two different entrance and exit routes.

Appendix F

Incentive Programs

General Incentives Programs

The following information was summarized from "Incentive Programs for Resource Management and Conservation" (OSU Extension Publication #EC1119) and other sources. This lists the major incentive programs available to assist communities and landowners with the management of their communities. These programs are not limited to the issues of Communities at Risk and are able to provide similar types of cost share opportunities on private lands in all areas of Morrow County.

Many other programs exist in addition to those listed. There are specialized / targeted incentive programs (National Fire Plan, Blue Mt. / Pacific Coast Demonstration Projects, etc) are not covered in this general summary.

Major Incentive Programs available to Family Forestland Owners in Oregon:

>**Forest Stewardship Program (FSP)** --- cost shares consultant written / ODF approved stewardship plans -- apply with your local ODF Stewardship Forester using FLEP application form.

>**Forest Resource Trust (FRT)** --- loan / grant to cover costs (normally 100% of costs) to convert underproducing forest land or marginal agricultural land into conifer forest. Applies only to DF "high" Site 4 or better sites. Apply by completing FRT application form at local ODF offices.

>**Forest Land Enhancement Program (FLEP)** --- cost shares a variety of upland forestry practices (site prep, tree planting, non-commercial thinning, release, etc.) Apply with local ODF Stewardship Forester using FLEP application form.** Projects are funded from one "pot" of funds in Salem. Funds are allocated to applications that arrive in Salem on a first come, first served basis, by priority. Unused funds continually recycle back into the "pot" as projects are completed or cancelled. In addition, we anticipate that "new" funds will be made available to Oregon in late 2005.

>**Oregon 50% Underproducing Forest Land Conversion Tax Credit** -- state tax credit on cost of converting underproducing forestland (brush land and low value / low volume forest) to well stocked forest. Apply by completing tax credit form and submitting it to the local ODF Stewardship Forester. (The form is available on the ODF/Private & Community Forests web site or at the local ODF office.) The state tax credit is available to qualified landowners and projects on a continuous basis. Proposed projects should be pre-qualified by the local ODF Stewardship Forester.

>**Afforestation Incentive (OAR 629-611 Forest Practices Rules)** - Provides landowners an incentive to convert parcels of idle land or land in other uses to commercial forest use. Provides assurance that no state forest practices regulation will prohibit harvesting most of the planted timber established and grown as the first crop rotation. Contact the local ODF Stewardship Forester for more information.

>**Federal (10%) reforestation tax credit** --- federal tax credit on cost of most afforestation or reforestation projects is available for project work completed before October 22, 2004. For reforestation / afforestation work done after October 21, 2004, landowners can "deduct" a certain amount of project expenses. (Note: The 10% federal tax credit has been repealed but landowners will be able to deduct some reforestation / afforestation expenses going forward from now.) Landowners need to contact the IRS or their tax professional to get the required forms and properly utilize this incentive. Additional Information can be found at: www.timbertax.org

>**Environmental Quality Incentives Program (EQIP)** -- can cost share a wide variety of agricultural and forestry practices. However, availability of funding for upland forestry practices depends on a number of woodland owners applying for EQIP funding and actively participating in local EQIP working group. Apply for EQIP funds at local NRCS (Natural Resource Conservation Service) office.

>**Watershed Improvement Grants (OWEB)** --- cost shares riparian (usually near stream or in-stream) work - check with local watershed counsel and / or SWCD (Soil & Water Conservation District). Grant applications are available on-line at OWEB or at the local SWCD office.

>**Wildlife Habitat Incentives Program (WHIP)** -- cost shares a variety of wildlife enhancement practices which can include forest establishment and thinning for wildlife purposes. Apply with local NRCS office.

>**Conservation Reserve Program (CRP)** -- cost shares a variety of conservation practices on agricultural land including forest establishment and thinning. Pays rental on acres enrolled for ten to fifteen years. Apply at local FSA (Farm Services Agency) office. ***Funding is available.***

>**Conservation Reserve Enhancement Program (CREP)** -- cost shares primarily riparian and wet land improvement projects on agricultural land. Practices include riparian forest buffer establishment. Pays rental on acres enrolled for ten to fifteen years. Apply at local FSA office.

Community Fire Assistance

Volunteer Fire Assistance (VFA): Assistance to Volunteer Fire Departments for equipment & supplies. Contact the local ODF office.

Rural Fire Assistance (RFA): Assistance to Rural Fire organizations for equipment and supplies. Contact the local ODF office.

Federal Excess Personal Property program (FEPP): Provides federal excess equipment and supplies to city & rural fire departments for firefighting purposes. Contact the local ODF office.

Other Programs

Special funding for Insect & Disease control. The cost share amounts varies depending on the acreage owned. It varies from 33% to 50%, with the larger landowners being eligible for only 33% of the costs. Contact the local ODF office.

Title II, funding is available from the county court for projects to enhance forest objectives. Contact the County Court.

Additional Incentive Programs to assist Communities and Private Landowners

Cost Share Program	Objective	Contact Agency
Forest Stewardship Program (FSP)	Develop Stewardship/Management Plans for Private landowners	Oregon Department of Forestry
Forest Resource Trust (FRT)	Convert underproducing forestland or marginal agricultural land into conifer forest, high site 4 or better sites	Oregon Department of Forestry
Forest Land Enhancement Program (FLEP)	Cost share site prep, tree planting, non-commercial thinning, and release.	Oregon Department of Forestry
Oregon 50% Underproducing Forest Land Conversion Tax Credit	Convert underproducing forestland to well stocked forest.	Oregon Department of Forestry
Afforestation Incentive	Converts parcels of idle to commercial forest use.	Oregon Department of Forestry
Federal (10%) reforestation tax credit	Federal tax credit on cost of reforestation projects	IRS or tax professional
Environmental Quality Incentives Program (EQIP)	Wide variety of forestry practices	Natural Resource Conservation Service (NRCS)
Watershed Improvement Grants (OWEB)	Riparian work and protection of water quality which can include upland forestry work.	Soil Water Conservation District (SWCD)
Wildlife Habitat Incentives Program (WHIP)	Wildlife enhancement practices which can include forest establishment and thinning for wildlife.	Natural Resource Conservation Service (NRCS)
Conservation Reserve Program (CRP)	Conservation practices on agricultural land including forest establishment and thinning.	Farm Service Agency (FSA)
Conservation Reserve Enhancement Program (CREP)	Riparian improvement projects including forest buffer establishment.	Farm Service Agency (FSA)
Volunteer Fire Assistance (VFA)	Grant assistance to volunteer fire departments for equipment and supplies.	Oregon Department of Forestry
Rural Fire Assistance (RFA)	Grant assistance to city and rural fire departments in communities of less than 10,000 population for equipment and supplies.	Oregon Department of Forestry
Federal Excess Personal Property Program (FEPP)	Federal excess equipment and supplies to city and rural fire departments for firefighting purposes.	Oregon Department of Forestry
Special Insect & Disease Control	Cost share assistance to landowners to control insect and disease infestations.	Oregon Department of Forestry
Title II	Funding for forest health projects	County Government

The *minimum requirements* for a CWPP as described in the HFRA are:

- (1) **Collaboration:** A CWPP must be collaboratively developed by local and state government representatives, in consultation with federal agencies and other interested parties.
- (2) **Prioritized Fuel Reduction:** A CWPP must identify and prioritize areas for hazardous fuel reduction treatments and recommend the types and methods of treatment that will protect one or more at-risk communities and essential infrastructure.
- (3) **Treatment of Structural Ignitability:** A CWPP must recommend measures that homeowners and communities can take to reduce the ignitability of structures throughout the area addressed by the plan.

Windstorm Summary and Risk Assessment

Windstorm Summary

Morrow County has experienced great loss of life as the result of a severe thunderstorm that occurred on June 14, 1903. Called the Heppner Flood, it was the worst flood caused by a severe thunderstorm, in terms of loss of life, ever to occur in Oregon. Typically the greatest damage caused by severe windstorms, thunderstorms and tornadoes in Morrow County are damages to structures of light construction such as manufactured homes, road blockages and other damage due to downed trees, flooding in low areas, and blowing debris.

Impacts of Windstorm in Morrow County

Morrow County is subject to often intense gusts of high winds and windstorms. Although they are not usually life-threatening, high winds can disrupt daily activities, cause damage to buildings and structures, and increase the potential of other hazards. Some areas with little or no ground cover such as open agricultural fields experience blinding gusts of dust and road debris, including tumbleweeds, which become a hazard for travelers and an occasional disruption of local services. High winds sometimes cause severe transportation disruptions due to localized roadways blocked with debris, downed trees over roadways, and low areas completely filled with windblown tumbleweeds. Wildfires can be accelerated and made unpredictable by windstorms, which can cause grave danger to firefighters, emergency response personnel and residences or other structures that happen to be in the path of a wayward wildfire. Effects of the windstorms may be seen in damage to agricultural systems such as circle irrigation units, to structures such as roof damage and cracked windows, and damage to trees and landscaping. Power outages due to downed or damaged power supply lines have the potential to disrupt emergency response during and after a destructive windstorm.

Windstorm History and Location in Morrow County

Severe weather in the form of wind storms are part of the history of the region from the 1903 flash flood tragedy in Heppner to the 1999 dust storm which caused a multiple automobile crash on September 25, 1999 in Umatilla County on Interstate 84 east of Morrow County. Morrow County has experienced tornadoes, as reported in The Oregon Weather Book, A State of Extremes:

"In Morrow County the same day a tornado formed on the McElligott Ranch property southwest of Lone and traveled eastwards 20 miles before disappearing on the outskirts of Lexington. The twister was accompanied by heavy rains and

hail, some of which, near Heppner, was golfball size. Two ranches near Lexington measured half an inch of rain in less than 10 minutes and in Sand Hollow another rancher reported 1.20 inches in less than 30 minutes. The tornado passed over rangeland, dairyland, and wheat farms and caused no structural damage."

Tornadoes occur in Morrow County more frequently than many people realize and the severe weather that accompanies them strikes at the road system in the form of flooding, the agricultural areas in the form of damaged crops, barns, buildings, and irrigation systems and the residential areas with downed trees, roof damage and windblown debris. The storm event of May 19, 2006 had a reported funnel cloud in the Boardman area that was cause for the National Weather Service to issue a tornado warning that afternoon.

Vulnerability and Probability Assessment of Windstorms

Morrow County is vulnerable to high winds and rain in the form of severe thunderstorms and rainstorms. The Oregon Natural Hazard Mitigation Plan for Region 5 assesses the likelihood of a future major emergency or disaster caused by a windstorm to be "moderate" (one to ten percent affected) in Morrow County. The vulnerability, which addresses the percentage of population or the region's assets likely to be affected by a windstorm emergency, is "high" (more than ten percent affected). The severe rain storm event on May 19, 2006 is a good example of such an emergency and the timing of the event, which occurred during the initial writing of this Plan, underscored for the participants the value that can be obtained from mitigating for future storm events. This tornado warning and flash flooding event yielded many Action Items for flood control on the County's roadways and brought participants to the planning effort who may have otherwise not bothered to participate.

Location of Hazard:	Extent of Hazard at the Location:
• Morrow County	• Morrow County
History of Windstorm Occurrences in Morrow County	

- September 19, 1982. Thunderstorm and Wind. National Weather Service Report
- June 25, 1992. Hail. National Weather Service Report
- April 23, 1998. Heavy rain. National Weather Service Report
- July 12, 2001. Thunderstorm and wind. National Weather Service Report
- August 4, 2004. Hail. National Weather Service Report
- May 19, 2006 Severe Windstorm event - see NWS Pendleton references
- June 29, 2008. Thunderstorm and wind. National Weather Service Report
- June 16, 2010. Funnel cloud. National Weather Service Report
- April 14, 2011. Tornado. National Weather Service Report
- April 4, 2013. Thunderstorm and wind. National Weather Service Report
- September 15, 2013. Hail, thunderstorm and wind. National Weather Service Report
- May 31, 2015. Hail. National Weather Service Report

Windstorm in the News in Morrow County Region

- September 28, 1999: "Seventh victim dies as result of highway crash" The Oregonian
- October 2, 2002: "Lawsuit seeks \$31 million for 1999 dust storm death" East Oregonian
- May 20, 2006: "Severe weather strikes area" East Oregonian
- May 23, 2006: "Depot Loses Poser Due to Wind Storm" The Hermiston Herald
- June 14, 2006: "May tornado lashed Morrow County" The Oregonian
- March 18, 2015: "NWS to hold free weather spotter training in Heppner" Heppner Gazette Times

NHMP Risk Assessment Scores

Rank = 3 Probability = High Vulnerability = Medium

Previous Mitigation Efforts:

- Oregon Department of Transportation Community Solutions Team Final Report and memorandum of understanding regarding September 1999 chain-reaction crash on Highway I 84 killing 8 persons.
- Blowing Dust Hazard map on the NOAA website:
<http://www.wrh.noaa.gov/pdt/currentHazards/graphicalHazards.php?content=graphicalHazards&wfo=&tab=3&lang=eng>
- November 14, 2007: "Wind damage reported" Heppner Gazette Times
- Weather Spotter training provided by the NOAA and NWS

Winter Storm Summary and Risk Assessment

Winter Storm Summary

Morrow County is vulnerable to the whims of winter storms and the associated problems. Roads can become temporarily impassable due to snow accumulation, although primary roads such as Interstate 84 are rarely closed due to snow and ice accumulation.

Impacts of Winter Storms in Morrow County

The most common impacts of winter storms are temporary road closures and flooding due to storm events, to include mud flowing across a road from nearby agricultural fields, ice storms and tumbleweeds blocking roadways.

In addition to actual stormy conditions in the winter, dense, freezing fog can be a real hazard, especially on roadways and bridges.

Winter Storm History and Location in Morrow County

As of the writing of this Plan, Morrow County has not participated in any Emergency Declarations due to winter storm conditions. Although winter storms happen in the County, a written history is limited to the activities of the winter road crews working to keep the streets and highways safe for traffic.

Vulnerability and Probability Assessment of Winter Storm

Emergency managers have assessed the vulnerability of the County to disastrous winter storms as "high." This means that more than ten percent of the population or regional assets are likely to be affected by a major winter storm event. The probability assessment is also "high." This indicates that the County will likely experience one incident of disabling winter storm within a 10 to 35 year period.

Location of Hazard:	Extent of Hazard at the Location:
• Morrow County	• All roads and highways
History of Winter Storms Within Morrow County:	

- November 24, 2000. Winter storm. National Weather Service Report
- December 30, 2005. Heavy snow. National Weather Service Report
- March 1, 2007. Heavy snow. National Weather Service Report
- November 28, 2007. Heavy snow. National Weather Service Report
- January 8, 2008. Heavy snow. National Weather Service Report
- January 28, 2009. "Ice, Snow and Frost Cause Power Outage." Heppner Gazette Times
- November 21, 2010. Heavy snow. National Weather Service Report
- January 19, 2012. Winter storm. National Weather Service Report
- February 24, 2014. Ice storm. National Weather Service Report

NHMP Risk Assessment Scores

Rank = 2 Probability = High Vulnerability = High

Previous Mitigation Efforts:

- Winter road crew readiness in the Morrow County Public Works Department
- Winter road crew readiness in the Oregon Department of Transportation
- NOAA Pendleton's severe weather warning web page:
<http://www.wrh.noaa.gov/warnings.php?wfo=pdf>

**CITY OF BOARDMAN
RESOLUTION NO. 23-2016**

**A RESOLUTION ADOPTING THE MORROW COUNTY NATURAL
HAZARD MITIGATION PLAN**

WHEREAS, The City of Boardman 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 Morrow County Court appointed a Steering Committee to guide the update of the Plan, which was originally adopted by the County in 2006, which consisted of 12 people representing various agencies and organizations in Morrow County to include the local fire protection districts, the Morrow County Emergency Manager, Morrow County Public Works, Local Emergency Planning Committee, the five communities of Morrow County, and Morrow Soil and Water Conservation District, all having a stake in natural hazard mitigation; and

WHEREAS, the Steering Committee met the following five times:

- February 23, 2012
- November 19, 2013
- March 4, 2014
- October 20, 2015
- April 5, 2016 (NHMP Cities Meeting)

WHEREAS, The City of Boardman participated in the FEMA review process to update this Natural Hazard Mitigation Plan; and

WHEREAS, The City of Boardman held a public meeting on February 4, 2014, to consider the Natural Hazard Mitigation Plan and the Boardman City Annex; and

WHEREAS, after the first FEMA review process Morrow County made changes as required to the draft plan; and

WHEREAS, after the second FEMA review process, FEMA approved the draft plan, and the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X officials have reviewed the "Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan" and pre-approved this update contingent upon this official Adoption by Resolution of the participating governments and entities;

NOW THEREFORE BE IT RESOLVED that the city of Boardman adopts by resolution the "Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan" as an official plan; and

BE IT FURTHER RESOLVED, Morrow County will submit the adoption resolutions to the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X officials to enable the plan's final approval.

Section 1 Title of Resolution:

This resolution shall be known, and may be cited as "The 2016 Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan."

Section 2 Attached Document:

The Morrow County Natural Hazard Mitigation Plan, which includes five Chapter Sections of the Plan, eight Natural Hazard Annexes, five City Annexes, and Appendices "A" through "G" arranged as follows and attached:

Chapters of The Plan:

- Section 1 - Introduction
- Section 2 - Community Profile
- Section 3 - Natural Hazard Risks
- Section 4 - Mission, Goals and Action Items
- Section 5 - Plan Implementation and Maintenance

Hazard Specific Annexes:

- Drought
- Earthquake
- Flood
- Landslide
- Volcano
- Wildfire
- Windstorm
- Winter Storm

City Annexes:

- Boardman
- Heppner
- Ione
- Irrigon
- Lexington

Resources Appendices:

- A - Resource Directory
- B - Planning and Public Process
- C - Regional Natural Hazard Public Opinion Survey
- D - Existing Plans, Policies, and Programs
- E - List of Acronyms
- F - Action Items
- G - Maps

Section 3 Effective Date:

To respect the work done by the Steering Committee, the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X, The City of Boardman Court deems there to be an emergency. This Resolution and its attached document, the Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan, is to be effective on January 1, 2017, which is after adoption by Morrow County and all five communities

ADOPTED by the Boardman City Council, Boardman, Oregon, on this 6th day of December, 2016.



Mayor –Sandy Toms

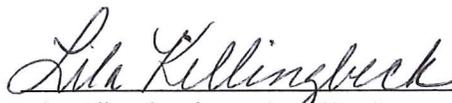


Councilor-Art Kegler



Councilor-Marc Rogelstad

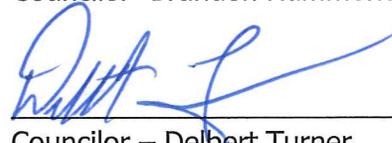
ATTEST:



Lila Killingbeck, Acting City Recorder



Councilor- Brandon Hammond



Councilor – Delbert Turner



Councilor – David Jones



Councilor – Brenda Profit

BOARDMAN, OREGON

Annex to the Morrow County Multi-jurisdictional Natural Hazard Mitigation Plan

December 2016



City of Boardman 2014 update

Natural Hazard Mitigation Plan

In 2006 the City of Boardman and four other cities in Morrow County worked together on a Per-Disaster Mitigation Plan, in an effort to reduce future loss of life and property. The plan was approved by FEMA and adopted by Morrow County. It is now time to update the 2006 plan as a comprehensive multijurisdictional Natural Hazard Mitigation Plan. With the joint efforts of the cities and County this plan will provide valuable information to prepare and reduce the risks that come with a natural hazard.

The City of Boardman established a Steering Committee as part of this multijurisdictional plan. They consist of the City Council members, Mayor, City Manager, and the Public Works Director.

As part of the public involvement, the City held a public council meeting to discuss the revised Natural Hazard Mitigation Plan. (See Attached Minutes)

The City of Boardman has a snow & ice control program that is posted on our website. The Boardman Rural Fire Protection District also has an Open Burning Policy that they put out. (See Attachment)

The City of Boardman is also a member of the LOPC (Local Emergency Planning Committee). The LOPC plans for local emergency such as hazardous chemical release from one of the processing plant, power plant, a train derailment or leaking train car. Also Hwy. 84 and the trucks that haul hazardous chemicals that pass through the City of Boardman.

The City of Boardman has a population of 3220 resident (2010 Census) with 964 households. With 61.7% Hispanic or Latino, 33.4% White. Broke down by age group there is 31.7% 16 to 18 – 30.3% 18 to 21 – 27.9% 21 to 62 – 3.9% 62 to 65 and 2.8% 65 and over. The City of Boardman has a Senior Center and a Medical Center.

The City of Boardman is mainly an agricultural community with it being home to the Port of Morrow where there are 18 processing plants. There are 11 food processing and storage plants, 1 gas powered generation plant, 1 wood chipping mill, 1 dry kilns and planer mill, 1 alfalfa hay processing plant, 1 ethanol producing plant, 1 bio-fuels terminal for loading ethanol in barges. 1 mining company of aggregate for cement, asphalt and other rock uses.

The City of Boardman infrastructure and critical facilities are listed in the County Natural Hazard Mitigation Plan. In addition to the plan under critical facilities we have added the Oregon Geology's study on Seismic Needs Assessment Report, for Sam Boardman Elementary and Riverside Junior/Senior High Schools. (See Attachments)

The City of Boardman Risk Assessment Summary is in the County Natural Hazard Mitigation Plan.

One new Action Item A-3 has been added to the City of Boardman. (See Attachment)

Action Items

Attachments: A-1, A-2, A-3

Addendums:

B-1: City Council Minutes

B-2: City of Boardman Snow & Ice Control Program

B-3: Boardman Rural Fire Protection District Open Burning Policy

B-4: Seismic Needs Assessment Report

Mitigation Action Progress Report Form

Progress Report Period	From Date: 2006	To Date: 2014
Action/Project Title	Goal#5 Portable backup generator for package lift stations	
Responsible Agency	City of Boardman	
Contact Name	David Winters	
Contact Phone/Email	541-481-9252 publicworks@cityofboardman.com	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project canceled <input type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input checked="" type="checkbox"/> Project delayed Explain <u>Funding</u>	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Looked for funding source

2. What obstacles, problems, or delays did the project encounter?

No funding

3. If uncompleted, is the project still relevant? Should the project be changed or revised?

Yes, it is still relevant and the project should remain the same.

4. Other comments

Mitigation Action Implementation Worksheet

Complete a mitigation action implementation worksheet for each identified mitigation action.

Jurisdiction:	City of Boardman
Mitigation Action/Project Title:	Goal #5 Portable backup generator for package sewer lift stations.
Background/Issue:	No backup power for package sewer lift station. If there is a power outage of over 2 hours, there could be an overflow of sewage from the package lift stations.
Ideas for Integration:	Find funding source to purchase a portable generator that can go from lift station to lift station to keep them from overflowing.
Responsible Agency:	City of Boardman
Partners:	Public Works, State or Federal Resource Agency
Potential Funding:	State or Federal Resource Agency
Cost Estimate:	\$8,000.00 to \$10,000.00
Benefits: (Losses Avoided)	Would help insure that sewage overflows not happen and that sewage would not get into any of the waterways in the area.
Timeline:	ST
Priority:	High
Worksheet Completed by:	(Name/Department) David Winters - Public Works Department

Mitigation Action Progress Report Form

Progress Report Period	From Date 2006	To Date 2014
Action/Project Title	Back-up generator for water collector well #2	
Responsible Agency	City of Boardman	
Contact Name	David Winters	
Contact Phone/Email	541-481-9252 publicworks@cityofboardman.com	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input checked="" type="checkbox"/> Project delayed Explain __Funding_____	

Summary of Project Progress for this Period

1. What was accomplished for this project during this reporting period?	Looked for funding source.
2. What obstacles, problems, or delays did the project encounter?	No Funding
3. If uncompleted, is the project still relevant? Should the project be changed or revised?	Yes, it is still relevant and the project should remain the same.
4. Other comments	

Mitigation Action Implementation Worksheet

Complete a mitigation action implementation worksheet for each identified mitigation action.

Jurisdiction:	City of Boardman
Mitigation Action/Project Title:	Back-up generator for water collector well #2
Background/Issue:	No back-up power for the collector well #2 if there is a power outage. This well is one of the main sources of water for the City of Boardman.
Ideas for Integration:	To find funding for the purchase of a back-up generator.
Responsible Agency:	City of Boardman
Partners:	Public Works, State or Federal Resource Agency
Potential Funding:	State or Federal Resource Agency
Cost Estimate:	\$15,000.00 to \$25,000.00
Benefits: (Losses Avoided)	Will insure that the City will have adequate water for drinking and fire protection.
Timeline:	ST
Priority:	High
Worksheet Completed by:	(Name/Department) David Winters – Public Works Department

Mitigation Action Progress Report Form

Progress Report Period	From Date 2014	To Date 2014
Action/Project Title	Language Barriers	
Responsible Agency	City of Boardman	
Contact Name	David Winters	
Contact Phone/Email	541-481-9252	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input checked="" type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

<p>1. What was accomplished for this project during this reporting period?</p>	<p>No Action has been taken at this time.</p>
<p>2. What obstacles, problems, or delays did the project encounter?</p>	<p>Need to work out the details to get task completed.</p>
<p>3. If uncompleted, is the project still relevant? Should the project be changed or revised?</p>	<p>Yes, the project is still relevant and should remain the same.</p>
<p>4. Other comments</p>	

Mitigation Action Implementation Worksheet

Complete a mitigation action implementation worksheet for each identified mitigation action.

Jurisdiction:	City of Boardman
Mitigation Action/Project Title:	Language Barriers
Background/Issue:	Not being able to communicate with the non-English speaking community
Ideas for Integration:	Set up a training class?
Responsible Agency:	City of Boardman
Partners:	Cities and State and Federal Resource Agency
Potential Funding:	State and Federal Resource Agency
Cost Estimate:	?
Benefits: (Losses Avoided)	To make sure the non-English speaking community knows what to do in case of a Natural Hazard.
Timeline:	ST
Priority:	Moderate
Worksheet Completed by:	(Name/Department) David Winters – Public Works Department

B-1

**PRELIMINARY AGENDA
CITY OF BOARDMAN
CITY COUNCIL MEETING
7:00 PM
FEBRUARY 4, 2014**

- **CALL TO ORDER**
- **FLAG SALUTE**
- **ROLL CALL/EXCUSED ABSENCES**
- **APPROVAL OF MINUTES**
 - December 17, 2013 – Regular Meeting
 - January 7, 2014 – Regular Meeting (Available at meeting)
 - January 21, 2014 – Regular Meeting (Available at meeting)
- **INTRODUCTIONS**
- **FINANCIAL REPORT**
 - Ending January 31, 2014
- **PREARRANGED PRESENTATIONS**
 - Carla McLane - Pre-disaster Mitigation Plan
- **PUBLIC COMMENT**
 - **PETITIONS**
 - **OTHER PUBLIC COMMENT**

This time is set-aside for persons wishing to address the Council on matters not on the agenda. Speakers will be limited to three minutes, unless extended by the Mayor. If written material is included, 15 copies of all information to be distributed to the Council should be given to the Recorder or Manager prior to the meeting. Action will not be taken at this meeting on citizen comments. The Council, however, after hearing from interested citizens, may place items under new business on a future agenda so proper notice may be given to all interested parties. If no one wishes to comment, the next agenda item will be considered.

- **ACTION ITEMS**
 - **OTHER BUSINESS**
 - Liquor License Request
- **DOCUMENT SIGNATURES**
- **REPORTS, CORRESPONDENCE AND DISCUSSION:**
 - **POLICE REPORT**
 - **COMMITTEE REPORTS**
 - **CITY MANAGER**
 - **COUNCILORS**
 - **MAYOR**
- **EXECUTIVE SESSION**
- **ADJOURNMENT**

Upcoming Events:

- February 1, 2014 – Council Retreat – 8am to 2pm – City Hall
- February 1, 2014 – Senior Breakfast – 7:30am to 10:30am – Senior Center
- February 7, 2014 – Community Awards Dinner – 6pm – Port of Morrow
- February 15, 2014 – Love Letter Play – 6pm – SAGE Center
- February 18, 2014 – City Council – 7pm – City Hall
- February 19, 2014 – Planning Commission – 7pm – City Hall



P. O. Box 40 • Irrigon, Oregon 97844
(541) 922-4624 or (541) 676-9061 x 5503
FAX: (541) 922-3472

Agenda
Natural Hazard Mitigation Plan
Boardman Annex Portion
February 4, 2014

- I. Introduction and Purpose of this Discussion.
- II. Natural Hazard Mitigation and how it affects Boardman
 - Action Items from 2006 Plan
 - Provide portable power backup for the sewer system;
 - Provide back up generator for water collector #2.
 - Review of other Natural Hazard Risks
- III. Discussion of Hazard Events in Boardman in the last 7 years, if any
 - Was the infrastructure adequate?
 - Was the response by professionals and public adequate?
 - Is there a need for more training or education?
- IV. The Community Profile Review. Are there changes to or new information regarding community social systems, especially organizations providing services to children elderly low income, businesses?
- V. Local Community Plans. Has there been recent changes to community plans in relation to hazard mitigation? Are there any programs or plans that should be reviewed and updated? Specifically to:
 - Comprehensive Plan
 - Capital improvement Plan
 - Emergency Operations Plan
 - Parks and Open Space Plan
 - Stormwater Management Plan
 - Floodplain Ordinances
- V. Action Items - discussion as to keep, add to or remove Action Items in Plan.
- VI. Wrap up

City of Boardman – Morrow County Pre-Disaster Mitigation Plan Update

Issue Summary

In conjunction with the Oregon Partnership for Disaster Resilience (OPDR), Morrow County is currently in the process of updating its Pre-Disaster Mitigation Plan (PDMP). This is a great opportunity for cities within the county to participate in the update process in order to maintain or acquire eligibility for federal funding to implement hazard mitigation projects locally. Consensus built through the inclusion of cities and other agency stakeholders throughout Morrow County will improve the plan implementation process as well as the final PDMP, and will ultimately aid the process of building more resilient communities.

Morrow County Multi-Jurisdictional PDMP Update

A Pre-Disaster Mitigation Plan forms the foundation for a community's long-term strategy to reduce disaster losses and break the cycle of disaster damage, reconstruction, and repeated damage. It creates a framework for risk-based decision making to reduce damages to lives, property, and the economy from future disasters.

The Federal Emergency Management Agency (FEMA) approved the current Morrow County PDMP on December 15, 2006. In accordance with the five-year FEMA update and re-approval requirement, the plan recently lapsed on December 15, 2011.

In order for a jurisdiction within Morrow County to individually maintain eligibility for FEMA's Pre-Disaster Mitigation and Hazard Mitigation Grant Programs, participation from the jurisdiction must be documented within the county's plan. The code of federal regulations mandates the following:

- Multi-jurisdictional Participation - **§201.6(a) (3)**: *Multi-jurisdictional plans (e.g., watershed plans) may be accepted, as appropriate, as long as each jurisdiction has participated in the process.*
- Multi-jurisdictional Risk Assessment - **§201.6(c) (2) (iii)**: *For multi-jurisdictional plans, the risk assessment must assess each jurisdiction's risks where they vary from the risks facing the entire planning area.*
- Multi-jurisdictional Mitigation Strategy - **§201.6(c) (3) (iv)**: *For multi-jurisdictional plans, there must be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan.*
- Multi-jurisdictional Plan Adoption - **§201.6(c) (5)**: *For multi-jurisdictional plans, each jurisdiction requesting approval of the plan **must** document that it has been formally adopted.*

This project is being funded through FEMA's Pre-Disaster Mitigation Grant Program; Planning Project for Mid-Columbia Gorge County PDMP Updates (Grant Number: EMS-2011-PC-0002).

City of Boardman Criteria for Involvement

In order to document involvement from jurisdictions within Morrow County and complete the plan update on schedule, it is suggested that the City of Boardman complete the following over the next year:

Establish a Mitigation Plan Steering Committee

- Establish the City of Boardman Pre-Disaster Mitigation Plan Steering Committee
- Identify and invite new participants and external partners (e.g. Red Cross, Hospitals, School Districts, etc.)

Develop a Public Involvement Strategy

- Establish strategies that encourage public involvement
- Outreach strategies may include public information workshops, city newsletters, and press releases

Collect Data

- Collect mitigation plan maintenance meeting agendas and minutes since 2006
- Collect documentation related to any hazard occurrences or emergency declarations in the City of Boardman since 2006
- Identify and document plan implementation activities, including completed projects and other "success stories"
- Collect any local, state, or federal studies or reports completed since 2006 if available

Important Steps for the City of Boardman

- Attend and participate in Morrow County's PDMP Steering Committee meetings
- Brief city administration on project
- Establish and convene a City of Boardman PDMP Steering Committee at least once
- Notify public with a Public Service Announcement – we can help write it and contact local news outlets
- Identify potential stakeholder groups

Steering Committee Involvement

The Steering Committee will be tasked with ensuring that there is adequate stakeholder representation from the community. Morrow County Planning Department is committed to moving the process along in as efficient a manner as possible and will look to combine tasks and limit the total number of steering committee meetings wherever possible.

Project Outcome

Our primary measure of success for this project will be the adoption of an updated Morrow County PDMP. Ultimately it will be the process cities go through in the planning effort and the eventual implementation of the plans, not the plans themselves, which will be the true indicators of success resulting from this project.

Should you have any questions or concerns, please do not hesitate to contact Planning Director Carla McLane at cmclane@co.morrow.or.us or Associate Planner Layne Wolfmueller at lwolfmueller@co.morrow.or.us or at the office at 541-922-4624.

The meeting was called to order by Mayor Sandy Toms at 7:00 p.m. and she led the group in the Pledge of Allegiance. Roll call was taken:

Council members: Sandy Toms, David Jones, Brenda Proffitt, Christie Perry, Neil Livingston, and Art Kegler
 Absent: Marc Rogelstad
 Staff: Karen Pettigrew-City Manager, Lila Killingbeck-Recorder, Barry Beyeler, Chief Stokoe, and Jackie McCauley
 Audience: Carla McLane-Morrow County Planner, Layne Wolfmueller-Asst. Morrow County Planner, Lori Timmons-consultant, Diane Wolfe-Boardman Chamber Director, Craig Coleman-Neighbor Dudes, LLC, and Jeff McCauley

Councilor Rogelstad's absence was excused.

Councilor Perry moved to approve the minutes of the December 17, 2013 meeting as corrected. Councilor Kegler seconded the motion. All were in favor 6-0-1 absent.

FINANCIAL REPORT

The Financial Report for January, 2014 will be available at the February 18th meeting.

INTRODUCTIONS

Ms. Carla McLane, Morrow County Planning Director, introduced herself and Layne Wolfmueller, Assistant Planner. Ms. McLane introduced Ms. Lori Timmons, consultant, working on the Morrow County Pre-Disaster Mitigation Plan. Also in the audience was Mr. Craig Coleman, Neighbor Dudes, LLC.

PREARRANGED PRESENTATIONS

Pre-Disaster Mitigation Plan

Mayor Toms recognized Ms. Carla McLane, Morrow County Planning Director, from the audience. She provided an agenda for the review and update process of the 2006 Pre-Disaster Mitigation Plan. Federal Emergency Management Agency (FEMA) is requiring that every County in the United States have a non-regulatory plan in place for Natural Hazards. There are consequences for not having this plan in place if a disaster should occur, mainly there wouldn't be any help from FEMA. But the advantage would be funding options from FEMA if this plan is in place and there was a need for corrections of problem areas or fixing a problems cause by a natural disaster. Ms. McLane gave examples of the funding that had helped south Morrow County with flood control in the Black Horse Canyon area and the relocation of the Lexington Fire/City Hall.

Ms. McLane explained that Ms. Timmons worked for Morrow County Planning in 2006 and was an integral of the development and completion of the existing plan. She will be working again with each City and Morrow County to update the information and revise the previous plan. There has been a committee involved in this process so far including representatives from each city, along with emergency services representatives to get to this point. Mr. Barry Beyeler, Community Development Director, asked about the need for a Post Acknowledgment Plan Amendment process to update the Hazard appendix into the Boardman Comprehensive Plan. Ms. McLane stated that because this is a non-regulatory plan that it would not be needed until it was time for Periodic Review. Mr. Jeff McCauley asked if Mr. Don Kennedy from Local Emergency Planning Committee (LEPC) had been involved in this process. McLane stated that he had been at some of the meetings.

Ms. Timmons explained that the Mitigation Plan Steering Committee for the City of Boardman would be the Council. The staff would be making suggestions to the Council regarding the issues and needed projects. Ms. Timmons reminded the Council that there needed to be community involvement. The adoption of the 2006 Plan was made with City of Boardman Resolution 8-2007. Included with the plan were action item forms which were prepared and a Stakeholder Interview Summary. This information gave the Council a better idea of what was going to be expected in this plan. There was a discussion regarding Morrow County hazards, which are drought, fire, flood-storm events, winter storms (fog, ice) and in some areas of South County there are landslides. There was also a discussion regarding volcanic/earthquakes, which would be rare. There was a discussion regarding the documentation of hazards that is required such as: articles, minutes, and photos. Ms. Timmons stated that there will need to be a review of the disaster trainings, facilities (schools, clinics, hospitals, etc.), vulnerable populations, and languages of citizens. Ms. Diane Wolfe, Boardman Chamber, added that she had worked on this kind of project in Montana and that their committees and communities had worked together to put a Plan together and they added issues that only effect rural areas and what would be needed to handle these issues. During the review process there was some problems making the FEMA reviews understand the issue which don't come up in urban areas. The timeline for the City of Boardman review would be March and April and then it would be combined with the Morrow County and the other Cities of Morrow County to make a document to be reviewed and pre-approved by FEMA. This document should be ready for adoption in June or July, 2014.

PUBLIC COMMENT

Ms. Diane Wolfe, Boardman Chamber, reminded the Council of the Annual Banquet on Friday, February 7th from 6 p.m. - 10 p.m.

ACTION ITEMS

Other Business-Liquor License Request

Mr. Craig Coleman, Neighbor Dudes, LLC. was in the audience to request approval of a new Liquor License Application. The establishment will be called Ordinance Brewing and located at 405 N. Olson Road. The location will need to be remodeled before any business will be able to open at that location. Councilor Proffitt moved to approve the liquor license application for Neighbor Dudes, LLC, doing business as Ordinance Brewing at 405 N. Olson Road. Councilor Perry seconded the motion. Motion carried with 5-1-1 absent.

REPORTS, CORRESPONDENCE AND DISCUSSION

Police

Chief Stokoe reported that he and City Manager Pettigrew continue to work on the AFSME Police contract.

City Manager

City Manager Pettigrew pointed out the reports that were in the packet:

- Code Compliance/Animal Code officer Martin Martinez along with help from the Clerk's office prepared the January activity from Basis Gov reporting. Over the last few years this department has had different reports and this seems to be an easy report to review.
- Boardman Rural Fire Protection District January activity report had been provide by Chief Rogelstad regarding the work and calls handled by the district.
- There was an invitation to the Trudy Ludwig Bullying Prevention presentation at Sam Boardman Elementary for tomorrow at 6:00 p.m. to 7:30 p.m.
- An announcement from the OR Government Ethics Training regarding filling out the Statement of Economic Interest form, the webinar will be on Thursday, February 6 at 10:00 a.m. There was a discussion as to the difficulty of attending this because of work schedules.

There was a clarification of the election schedules for City of Boardman Councilors. The City Council election is in November and that means that the filing date is usually around the 20th of August. There was a discussion regarding other city elections being in March and May.

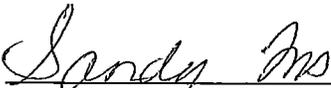
Council

Councilor Kegler thanked the people who provided the reports for the packet. Stating that he felt it was very beneficial.

Mayor

Mayor Toms thanked everyone for a productive retreat on Saturday, February 1st. She was happy that everyone was working together and the goals for the next year had been discussed and prioritized.

Council Meeting was adjourned at 8:05 p.m.



Sandy Toms-Mayor



Lila Killingbeck, Recorder

City of Boardman
Snow & Ice Control Program

We all know how unpredictable the weather can be in our area. We have experienced winters (normally December, January and February) with no snow accumulation, to winters such as we've had in the past that deposited heavy snow accumulation.

With a population of over 3000 and 80 plus lane-miles of streets, the City is continually striving to provide an acceptable level of snow and ice control.

NORMAL SNOW CONDITIONS

Our fleet of snow fighting equipment is readied before the ice and snow seasons each year. One, five-yard dump truck with sanding box and plow, 2.5 ton dump truck with sanding box and plow, combined with a crew of trained equipment operators, will keep major streets passable.

The City has established procedures and policies for addressing snow plowing and sanding of the streets. The procedures and policies are set on a priority basis, which set predetermined routes as follows:

First Priority: All main streets and main intersections considered to be the highest priorities to keep open the main streets and roadway systems connecting the fire station, police station, emergency medical services, and schools.

Second Priority: Other streets and selected areas such as steep hills and other problem areas identified by the public works department and/or police department.

Third Priority: Residential Streets

CITIZEN RESPONSIBILITIES

Snow can be beautiful, but it also can create hazards. When residents fail to clear their sidewalks, the result can be a treacherous ice patch. We need your help in protecting pedestrians from possible injury.

Residents are responsible to maintain their sidewalks and driveways adjacent to their property. Please pile snow on your yard, not in the street. If your sidewalk is icy, you may correct the hazard by applying a heavy coat of sand.

Handicapped, elderly or other individuals unable to clean snow from their sidewalks may choose to contact someone to do this job for them. The following **may** provide this service to you:

RHS Wrestling Team – Coach Boor 481- 2525

COMMON QUESTIONS ABOUT SNOW REMOVAL

Q: Can't the City remove the snow they put in my driveway and sidewalks?

A: Our primary duty is to open and keep open the main roadway system. Considering the large number of driveways and amount of sidewalks in the City, it is too costly and time consuming, and would require additional City staff and equipment to perform this service.

Q: Why not plow to the center?

A: Plowing snow and piling it to the center of a street causes a hazardous situation. Traffic flow is restricted by eliminating a portion of a lane and this practice can also create sight obstructions for low vehicles. The freeze-thaw cycle creates daily problems when the melting snow freezes on the road surface every evening.

Q: Can I park my car on the street?

A: Yes, on those streets where parking is normally allowed. However, having to maneuver a snowplow in and out between parked vehicles can not only be dangerous, but also nerve-wracking for our drivers and is not an efficient way to plow the snow. One must be aware that if a car is parked on the side of the street, we could plow your car in with a snow bank.

Q: Why are residential streets seldom plowed?

A: With over 80 lane miles of streets to maintain, with limited equipment and staff, it is usually not possible to plow all of the streets. We make every effort to get to the lower priority streets when conditions allow.

BOARDMAN RURAL FIRE PROTECTION DISTRICT OPEN BURNING POLICY

REQUIREMENT: Call 481-2112 ext.5129 or 541-676-5317 PRIOR to burning.

Permission is required for the burning of any grass, grains, stubble, debris, or other combustibles in all areas of the State or Oregon.

The Boardman Rural Fire Protection District allows open burning by permit. Permits are valid when the following conditions are met:

1. Prior to burning, permit holder is required to contact Morrow County Dispatch to find out if burning is authorized for that day.
2. Permit holder shall have adequate fire protection equipment in place to control fire.
(rake, shovel, hose, tractor, disk, etc.,)
3. Weather conditions do not exceed any of the following
 - A. Temperature above 90 degrees
 - B. Wind above 15mph
 - C. Humidity below 20%
4. Permit holder is not burning any prohibited materials.
5. Permit holder remains with fire until fire is out or extinguished.
6. The State Fire Marshall has not prohibited open burning.

Within the boundaries of District or Cities, the Fire Chief or his designated representative has the responsibility for such permits.

Open burning includes any burning outdoors. A fire in a "burn barrel" is open burning. So is burning debris in an outdoor fireplace or backyard incinerator. Other examples include burning piles of yard debris, burning stumps to clear land, and burning construction debris or the remains of demolished structures.

It is against the law to conduct any open burning that:

1. Unreasonably interferes with the enjoyment of life or property.
2. Creates a public or private nuisance.
3. Is a hazard to public safety
4. To burn any of the following materials:
 - A. Rubber products.
 - B. Tires
 - C. Plastic
 - D. Wet garbage
 - E. Petroleum & petroleum treated materials
 - F. Asphalt or industrial waste
 - G. Any material that creates dense smoke or noxious odors.
 - H. Creosote treated wood

Fire Emergency 911

Permit holders are responsible for all fires they start. Permit holders may be liable for costs incurred for the suppression of and or damages to property of others. It is the permit holder's responsibility to notify the Fire Department immediately in the event the permit holder loses control of the fire.

Open burning violations can result in penalties of up to \$10,000.00 per day of violation

ORS 478.965 allows for the district to recover costs of suppressing unlawful fire and attorney fees.

Unlawful fire is identified under ORS 477.740 as:

1. Unlawfully set on fire
2. Intentionally or negligently allows fire to escape
3. Accidentally set or allows to escape from control without extinguishing
4. Has knowledge of a fire burning and fails or neglects to make effort to control.

**Burning season CLOSED annually
June 15 to September 1**

**Boardman Fire Department
541-481-3473**

**PRIOR to BURNING
CALL THIS NUMBER
541-481-2112 EXT 5129 or 541-676-5317
Morrow County Dispatch**

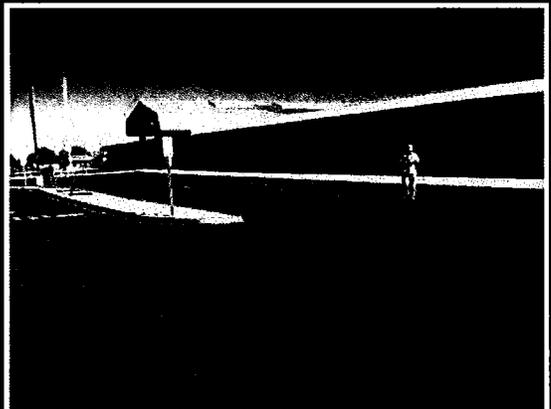
35

Riverside Junior/Senior High School

Morr_sch01A

Morrow SD 1

Building Type	County	
School	Morrow	
Street		
210 Boardman Ave		
City	State	Zip
Boardman	OR	97818
Latitude		Longitude
45.84151		119.6977
Tracking Code		Inspection Date
RVS in 2006		7/25/2006



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	1.6	0	-1.2	0	1.5
Secondary	RM1	3.6	-2	-0.5	0	0	0	-1.2	0	-0.1
Tertiary		0	0	0	0	0	0	0	0	0

Riverside Junior/Senior High School

Final RVS Score

Final Type

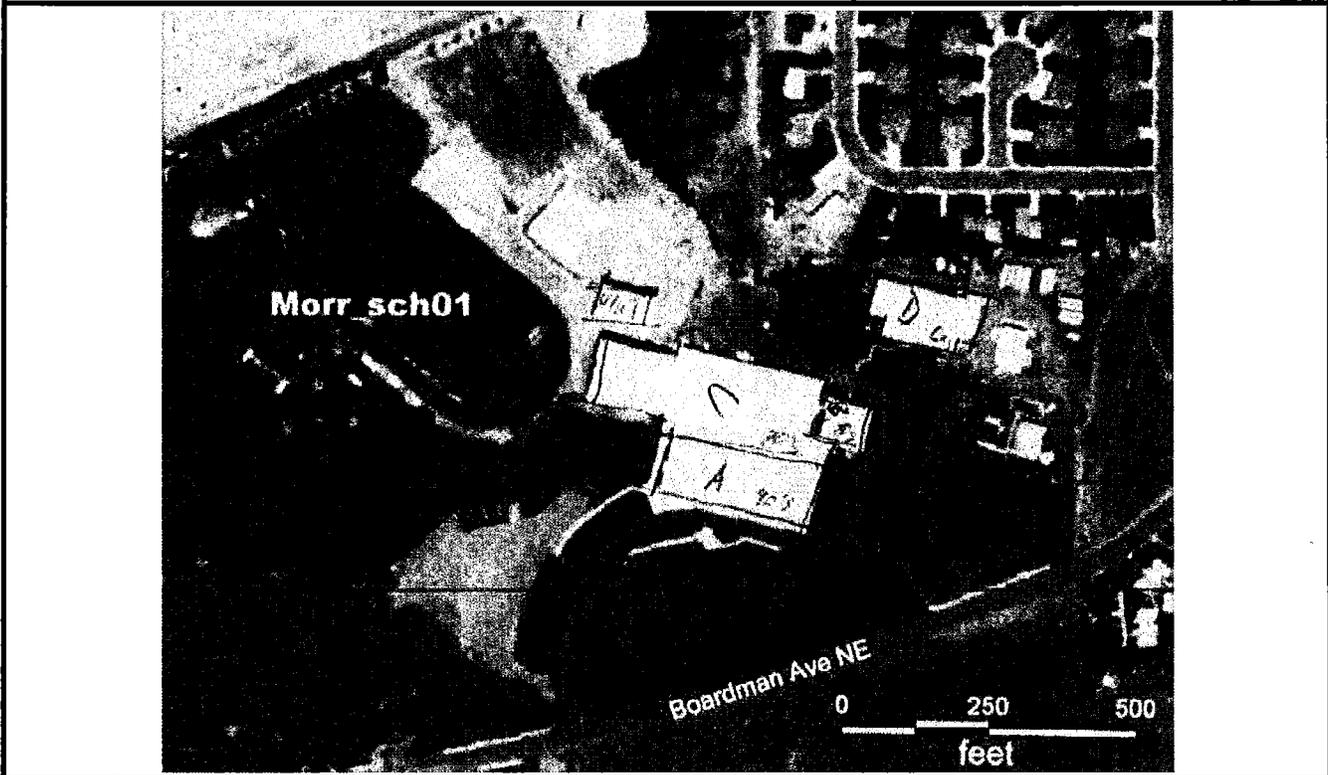
Final Score

RM1

-0.1

FEMA-154 Collapse Potential

Very High (100%)



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

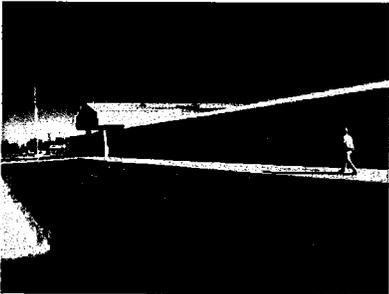
Riverside Junior/Senior High School

Morr_sch01A

Enrollment	Year Built (Field Verified)	Year Built (Alt. Source)	Est. Decade Built
455		1968	1990
Total Area (square ft)	Number of Stories	Basement	Pounding Potential
74273	1	No	No

Plan Irregularities	Vertical Irregularities
Reentrant Corners:Other (Adjacent Build/Entity)	Steps in Elevation View: Single Change
None	Steps in Elevation View: Single Change (Adjacent Building/Entity)
None	None

Falling Hazards	Poor Conditions
None	None
None	None
None	None



SE Vertical Irregularity Primary



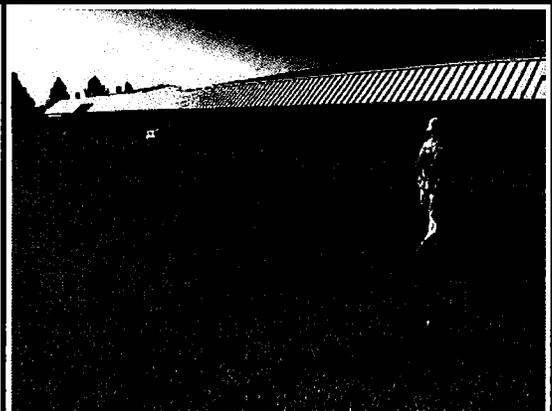
SE Plan Irregularity Primary

Riverside Junior/Senior High School

Morr_sch01B

Morrow SD 1

Building Type	County	
School	Morrow	
Street		
210 Boardman Ave.		
City	State	Zip
Boardman	OR	97818
Latitude		Longitude
45.84175		119.69703
Tracking Code		Inspection Date
RVS in 2006		7/25/2006



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	-2	-0.5	0	0	0	-1.2	0	-0.1
Secondary	C2	3.6	-2	-0.5	0	0	0	-1.2	0	-0.1
Tertiary		0	0	0	0	0	0	0	0	0

Riverside Junior/Senior High School

Final RVS Score

Final Type

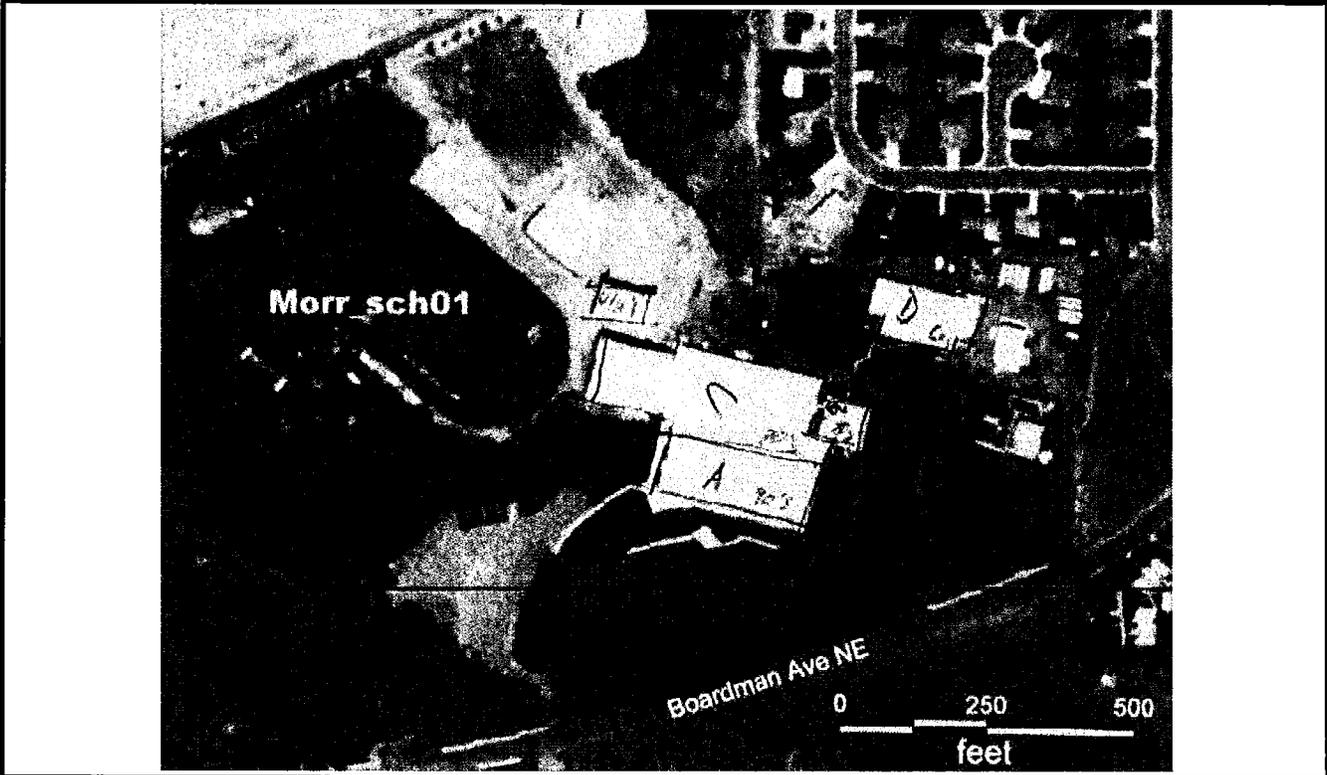
Final Score

RM1

-0.1

FEMA-154 Collapse Potential

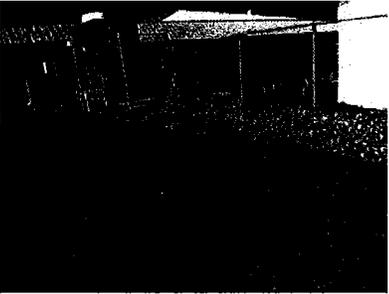
Very High (100%)



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

Riverside Junior/Senior High School

Morr_sch01B

Enrollment 455	Year Built (Field Verified)	Year Built (Alt. Source) 1968	Est. Decade Built 1970
Total Area (square ft) 74273	Number of Stories 1	Basement No	Pounding Potential No
Plan Irregularities		Vertical Irregularities	
Reentrant Corners: Other (Adjacent Build/Entity) None		Steps in Elevation View: Single Change (Adjacent Building/Entity) Building On Hill or Sloped Site	
None		None	
Falling Hazards		Poor Conditions	
None		None	
None		None	
None		None	
			
NE Vertical Irregularity Secondary			



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

Riverside Junior/Senior High School

Morr_sch01C

Morrow SD 1

Building Type		County	
School		Morrow	
Street			
210 Boardman Ave			
City		State	Zip
Boardman		OR	97818
Latitude		Longitude	
45.84191		119.69792	
Tracking Code		Inspection Date	
RVS in 2006		7/25/2006	



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	W1	5.2	0	-0.5	0	1.6	0	-0.6	0	5.7
Secondary	RM1	3.6	0	-0.5	0	0	0	-1.2	0	1.9
Tertiary	C2	3.6	0	-0.5	0	0	0	-1.2	0	1.9

Riverside Junior/Senior High School

Final RVS Score

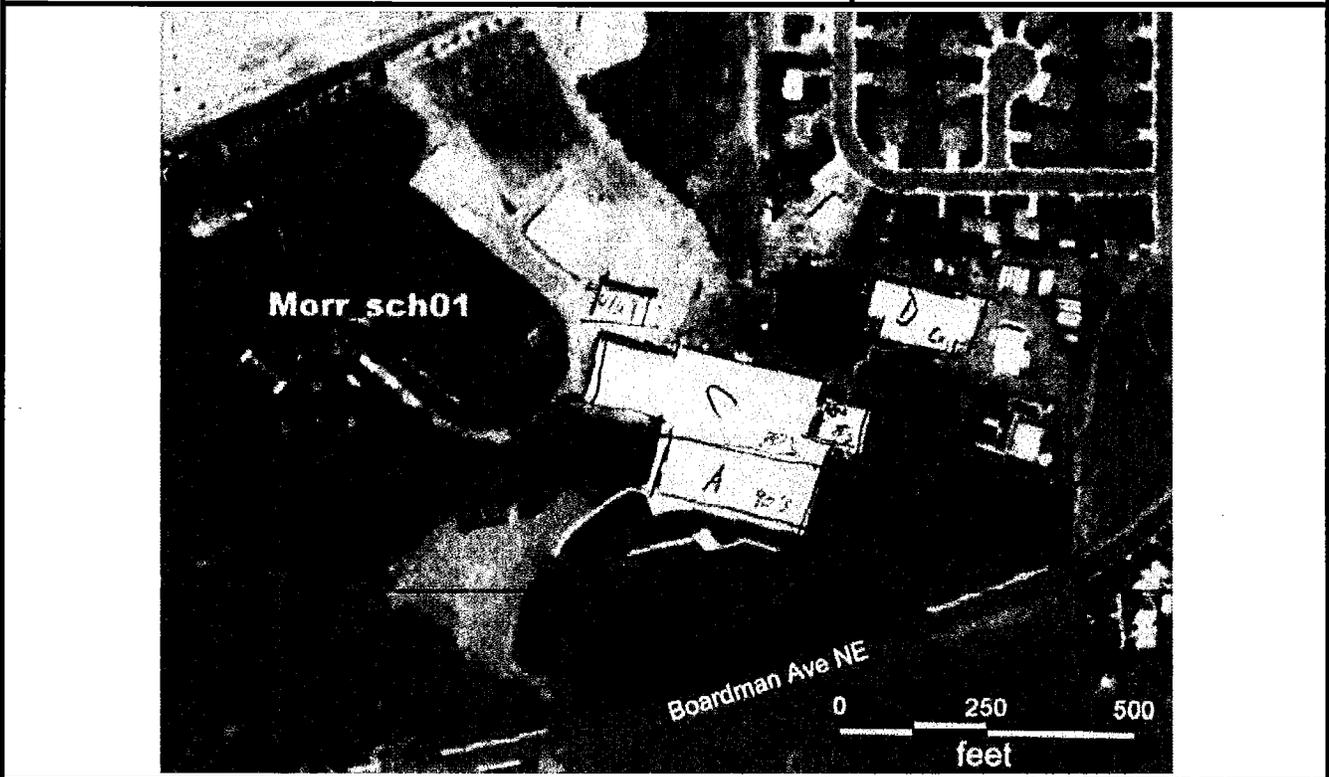
Final Type Final Score

RM1

1.9

FEMA-154 Collapse Potential

Moderate (>1%)



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

Riverside Junior/Senior High School

Morr_sch01C

Enrollment	Year Built (Field Verified)	Year Built (Alt. Source)	Est. Decade Built
455		1968	1980
Total Area (square ft)	Number of Stories	Basement	Pounding Potential
74273	1	No	No

Plan Irregularities	Vertical Irregularities
Reentrant Corners: Other	None
None	None
None	None

Falling Hazards	Poor Conditions
None	None
None	None
None	None



NW Plan Irregularity Primary

Morrow SD 1

Building Type		County	
School		Morrow	
Street			
210 Boardman Ave			
City		State	Zip
Boardman		OR	97818
Latitude		Longitude	
45.84226		119.69648	
Tracking Code		Inspection Date	
RVS in 2006		7/25/2006	



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	-1.2	0	1.9
Secondary		0	0	0	0	0	0	0	0	0
Tertiary		0	0	0	0	0	0	0	0	0

Riverside Junior/Senior High School

Final RVS Score

Final Type

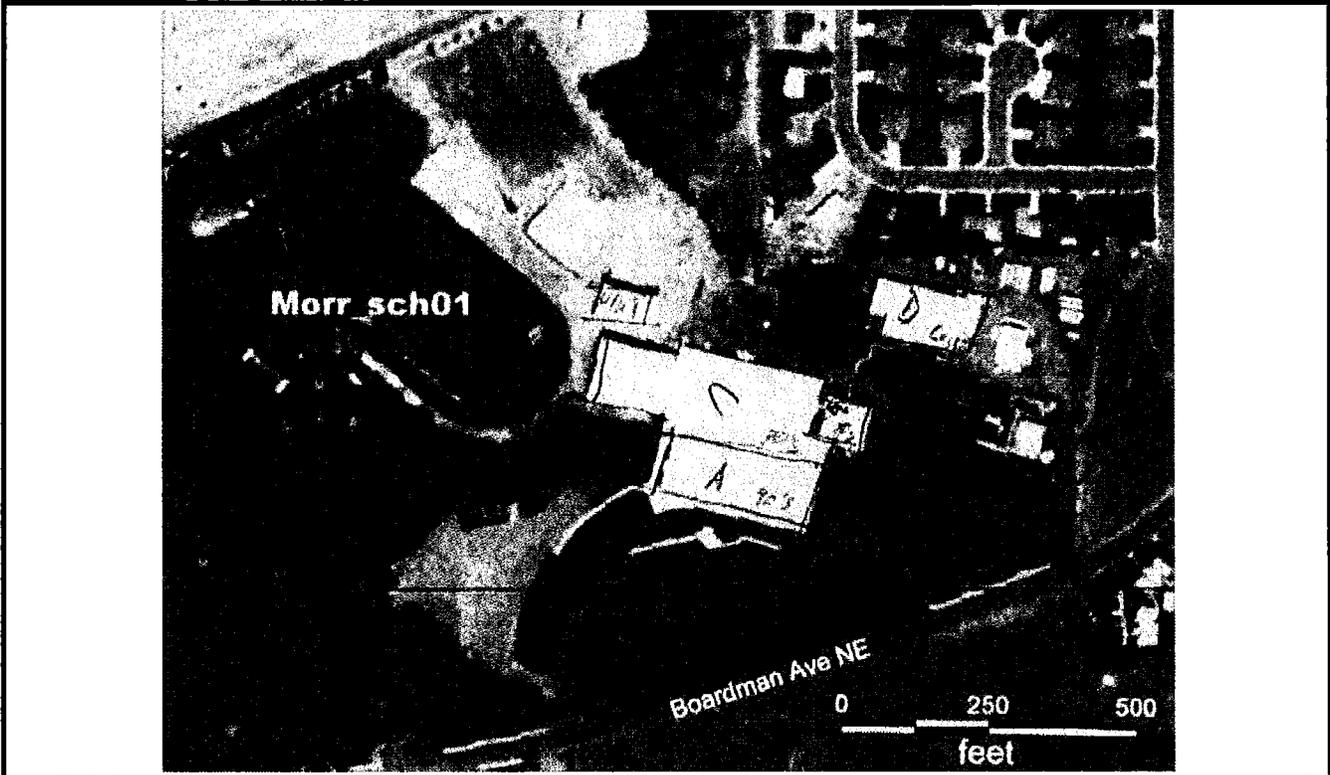
Final Score

RM1

1.9

FEMA-154 Collapse Potential

Moderate (>1%)

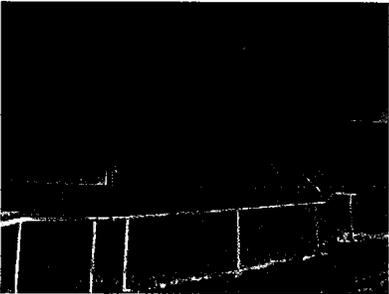


Rapid Visual Screening - Senate Bill #2 - Seismic Needs Assessment
Oregon Department of Geology and Mineral Industries

Enrollment	Year Built (Field Verified)	Year Built (Alt. Source)	Est. Decade Built
455		1968	1960
Total Area (square ft)	Number of Stories	Basement	Pounding Potential
74273	1	No	No

Plan Irregularities	Vertical Irregularities
Reentrant Corners: L Shaped	None
None	None
None	None

Falling Hazards	Poor Conditions
None	None
None	None
None	None



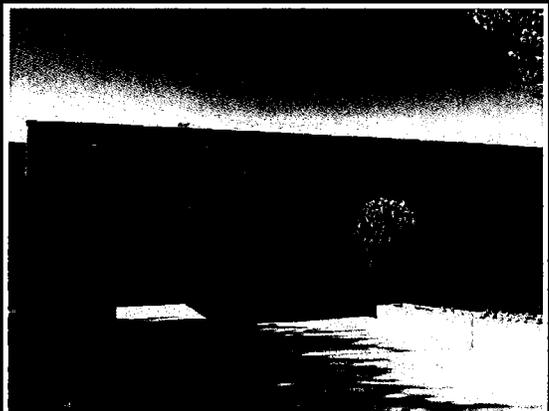
S Plan Irregularity Primary

Sam Boardman Elementary School

Morr_sch04A

Morrow SD 1

Building Type		County	
School		Morrow	
Street			
310 SW Wilson Ln			
City		State	Zip
Boardman		OR	97818
Latitude		Longitude	
45.82734		119.70726	
Tracking Code		Inspection Date	
RVS in 2006		7/25/2006	



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	-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

Sam Boardman Elementary School

Final RVS Score

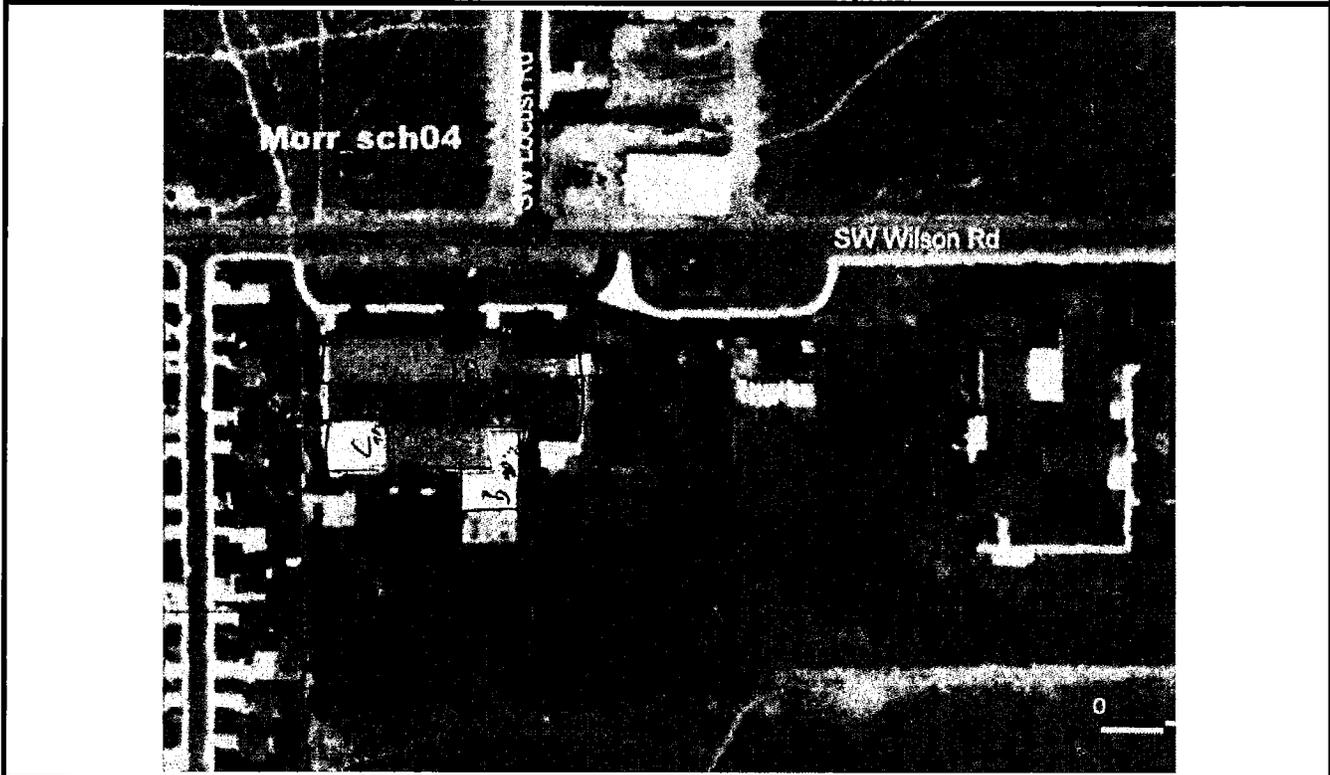
Final Type Final Score

RM1

0.3

FEMA-154 Collapse Potential

High (>10%)



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

Sam Boardman Elementary School

Morr_sch04A

Enrollment	Year Built (Field Verified)	Year Built (Alt. Source)	Est. Decade Built
417		1980	1980
Total Area (square ft)	Number of Stories	Basement	Pounding Potential
62849	1	No	No

Plan Irregularities	Vertical Irregularities
Reentrant Corners: Other	Steps in Elevation View: Single Change
Reentrant Corners: Other	Steps in Elevation View: Single Change (Adjacent Building/Entity)
None	None

Falling Hazards	Poor Conditions
Heavy Cladding (thick stone or concrete)	None
None	None
None	None



N Falling Hazard



SW Plan Irregularity Secondary



SW Vertical Irregularity Primary

Sam Boardman Elementary School

Morr_sch04B

Morrow SD 1

Building Type		County	
School		Morrow	
Street			
301 SW Wilson Ln			
City		State	Zip
Boardman		OR	97818
Latitude		Longitude	
45.82693		119.70712	
Tracking Code		Inspection Date	
RVS in 2006		7/25/2006	



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	-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

Sam Boardman Elementary School

Final RVS Score

Final Type

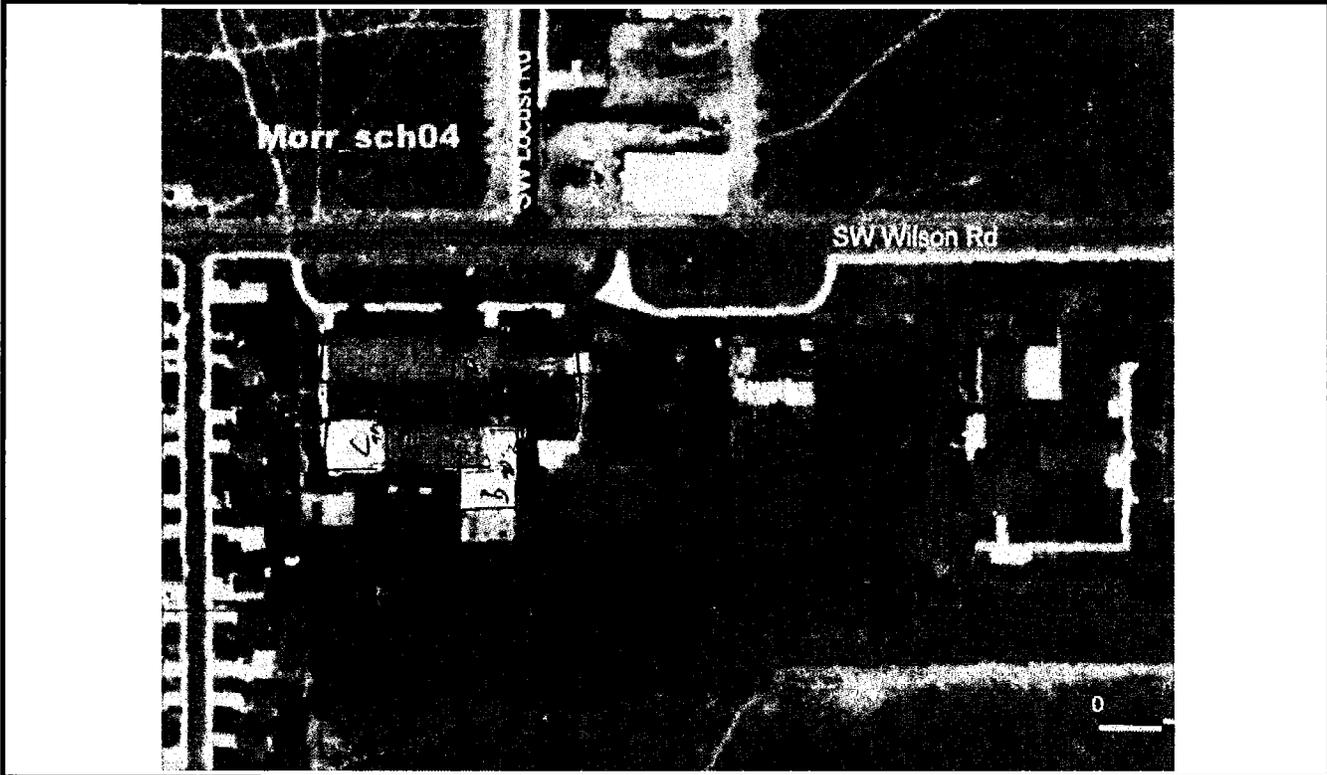
Final Score

RM1

0.3

FEMA-154 Collapse Potential

High ($\geq 10\%$)



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

Sam Boardman Elementary School

Morr_sch04B

Enrollment	Year Built (Field Verified)	Year Built (Alt. Source)	Est. Decade Built
417		1980	1990
Total Area (square ft)	Number of Stories	Basement	Pounding Potential
62849	1	No	No
Plan Irregularities		Vertical Irregularities	
Reentrant Corners: L Shaped		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	



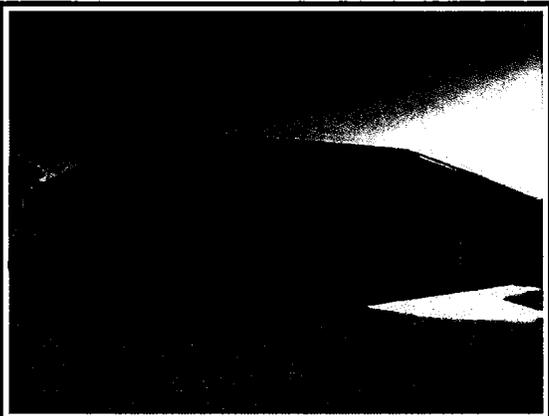
Rapid Visual Screening - Senate Bill #2 - Seismic Needs Assessment
Oregon Department of Geology and Mineral Industries

Sam Boardman Elementary School

Morr_sch04C

Morrow SD 1

Building Type		County	
School		Morrow	
Street			
301 SW Wilson Ln			
City		State	Zip
Boardman		OR	97818
Latitude		Longitude	
45.82709		119.70796	
Tracking Code		Inspection Date	
RVS in 2006		7/25/2006	



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	-2	0	0	0	-0.8	0	0	0.8
Secondary		0	0	0	0	0	0	0	0	0
Tertiary		0	0	0	0	0	0	0	0	0

Sam Boardman Elementary School

Final RVS Score

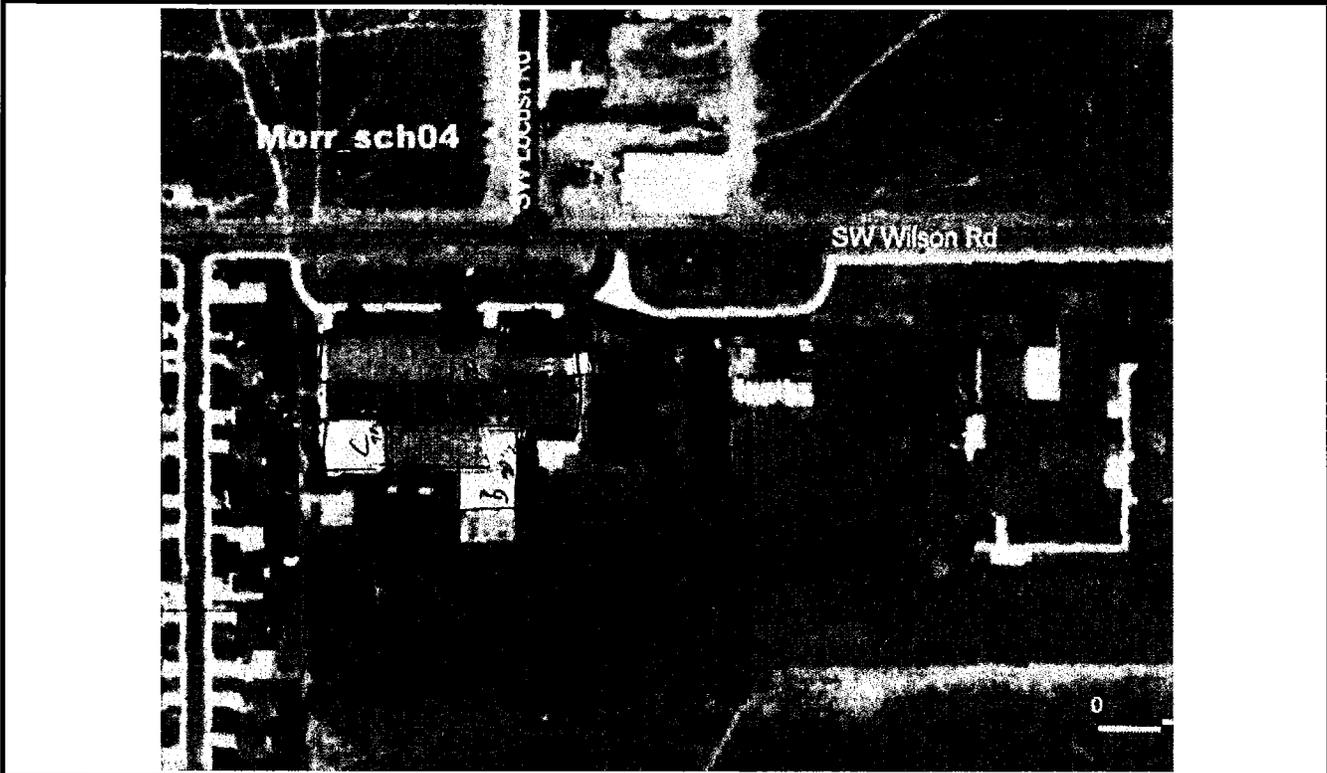
Final Type Final Score

RM1

0.8

FEMA-154 Collapse Potential

High (>10%)

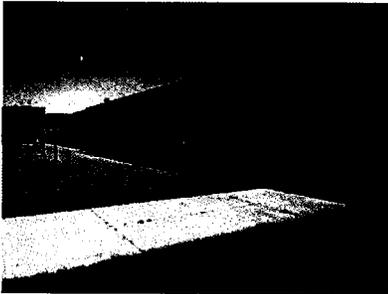


Rapid Visual Screening - Senate Bill #2 - Seismic Needs Assessment
Oregon Department of Geology and Mineral Industries

Sam Boardman Elementary School

Morr_sch04C

Enrollment 417	Year Built (Field Verified)	Year Built (Alt. Source) 1980	Est. Decade Built 1990
Total Area (square ft) 62849	Number of Stories 1	Basement No	Pounding Potential No
Plan Irregularities None		Vertical Irregularities Steps in Elevation View: Single Change (Adjacent Building/Entity)	
None		None	
None		None	
Falling Hazards None		Poor Conditions None	
None		None	
None		None	



NW General Site



CITY OF HEPPNER

A Resolution Adopting the Morrow)
County Natural Hazard Mitigation Plan) **RESOLUTION NO. 905-16**

WHEREAS, The City of Heppner 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 Morrow County Court appointed a Steering Committee to guide the update of the Plan, which was originally adopted by the County in 2006, which consisted of 12 people representing various agencies and organizations in Morrow County to include the local fire protection districts, the Morrow County Emergency Manager, Morrow County Public Works, Local Emergency Planning Committee, the five communities of Morrow County, and Morrow Soil and Water Conservation District, all having a stake in natural hazard mitigation; and

WHEREAS, the Steering Committee met the following five times:

- February 23, 2012
- November 19, 2013
- March 4, 2014
- October 20, 2015
- April 5, 2016 (NHMP Cities Meeting)

WHEREAS, The City of Heppner participated in the FEMA review process to update this Natural Hazard Mitigation Plan; and

WHEREAS, The City of Heppner held a public meeting on January 24, 2014, to consider the Natural Hazard Mitigation Plan and the Heppner City Annex; and

WHEREAS, after the first FEMA review process Morrow County made changes as required to the draft plan; and

WHEREAS, after the second FEMA review process, FEMA approved the draft plan, and the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X officials have reviewed the “Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan” and pre-approved this update contingent upon this official Adoption by Resolution of the participating governments and entities;

NOW THEREFORE BE IT RESOLVED THAT THE CITY OF HEPPNER ADOPTS BY RESOLUTION THE “MORROW COUNTY OREGON MULTI-JURISDICTIONAL NATURAL HAZARD MITIGATION PLAN” AS AN OFFICIAL PLAN; and

BE IT FURTHER RESOLVED, MORROW COUNTY WILL SUBMIT THE ADOPTION RESOLUTIONS TO THE OREGON OFFICE OF EMERGENCY MANAGEMENT AND FEDERAL EMERGENCY MANAGEMENT AGENCY, REGION X OFFICIALS TO ENABLE THE PLAN’S FINAL APPROVAL.

Section 1 Title of Resolution:

This resolution shall be known, and may be cited as “The 2016 Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan.”

Section 2 Attached Document:

The Morrow County Natural Hazard Mitigation Plan, which includes five Chapter Sections of the Plan, eight Natural Hazard Annexes, five City Annexes, and Appendices “A” through “G” arranged as follows and attached:

Chapters of The Plan:

- Section 1 - Introduction
- Section 2 - Community Profile
- Section 3 - Natural Hazard Risks
- Section 4 - Mission, Goals and Action Items
- Section 5 - Plan Implementation and Maintenance

Hazard Specific Annexes:

- Drought
- Earthquake
- Flood
- Landslide
- Volcano
- Wildfire
- Windstorm
- Winter Storm

City Annexes:

- Boardman
- Heppner
- Ione
- Irrigon
- Lexington

Resources Appendices:

- A - Resource Directory
- B - Planning and Public Process
- C - Regional Natural Hazard Public Opinion Survey
- D - Existing Plans, Policies, and Programs
- E - List of Acronyms
- F - Action Items
- G - Maps

Section 3 Effective Date:

To respect the work done by the Steering Committee, the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X, The City of Heppner deems there to be an emergency. This Resolution and its attached document, the Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan, is to be effective on January 1, 2017, which is after adoption by Morrow County and all five communities.

ADOPTED BY THE CITY OF HEPPNER CITY COUNCIL ON DECEMBER 12, 2016.



R.H. Matthews, Mayor

ATTEST



A. Kim Cutsforth, City Manager

HEPPNER, OREGON

Annex to the Morrow County Multi-jurisdictional Natural Hazard Mitigation Plan

December 2016



City of Heppner Natural Hazard Mitigation Plan

In 2006 FEMA approved and Morrow County adopted the first Natural Hazard Mitigation Plan in an effort to reduce future loss of life and property resulting from natural disasters. Now, almost 8 years later, Heppner is undergoing the process in conjunction with Morrow County to update the 2006 Plan as a comprehensive multijurisdictional natural hazard mitigation plan. The June 14, 1903 flood in Heppner stands as a perfect example as to why communities such as Heppner strive to plan and collaborate in advance of possible losses that can result from a natural disaster. This portion of the Plan will provide for Heppner a set of actions and will prepare for and reduce the risks posed by natural hazards through the programs outlined in this multi-jurisdictional Plan. Any resources and information listed within the Heppner annex will add to the information contained in the main portion of the Plan's sections. Additionally, Heppner will assess specific risk analysis to the listed hazards only when they vary from the risks facing the entire County.

The Annex Update

Heppner has participated in the update process as part of this multi-jurisdictional plan. The City established a Steering Committee that consists of the following members:

City Councilors: Skip Matthews, Dale Bates, Corey Sweeney, John Bowles, Judy Buschke, Jo Anne Burleson.

Mayor: Joe Perry

City Manager: Kim Cutsforth

Public Works Director: Chad Doherty

Public Involvement

The City participated in the following public outreach activities in order to involve new participants and external partners, such as the Red Cross, Hospitals, School District, etc. by the following actions:

The City sends an annual letter to all of its residents: this outreach letter discusses flood plain management, the history of flooding in our area, our emergency flood plan and the availability of emergency information. (See attachment)

The City of Heppner hosted a public meeting January 24, 2014 to discuss the revised Natural Hazard Mitigation Plan. The City held another meeting March 4, 2014 to update the steering committee.

The City is dedicated to preserving open spaces in
with National Flood Insurance Program.

Community Profile

Human Population

There is a fairly homogeneous population of 1290 residents in Heppner (96.7% white (2010 Census), which is distributed across the age categories as follows: 24.5% under the age of 18; 5.9% from ages 18 to 24, 24.3% from ages 25 to 44; 24.9% from ages 45 to 64; and 20.3% who are 65 years or older. Heppner has a Senior Center, an Assisted Living facility, and a 12 bed hospital.

Economic Assets

Heppner hosts local and state governmental offices, which include the Morrow County government, the City of Heppner, and regional offices of the Natural Resource Conservation Service (NRCS), Oregon Department of Transportation (ODOT), Morrow County School District and the United States Forest Service (USFS). Heppner has a traditional downtown area and is also the crossroads in the southern portion of the County for agricultural products transported to market in the wider region and as such, Heppner economy reflects this agriculture/governmental identity.

Cultural and Historic Resources

The most significant cultural and historic resource in Heppner is listed as the County museum, which contains historical information about all of the County and the cities, including records of natural disasters. Heppner has three buildings listed on the National Register of Historic Places: The County Courthouse, the Gilliam & Bisbee Building, and the Heppner Hotel. Heppner has two annual celebrations: The St. Patrick's celebration in March, and the Morrow County Fair and Rodeo in August.

Infrastructure and Critical Facilities

The Willow Creek Dam, which lies above Heppner to hold back flood water and also provides recreation opportunities, is among the most significant critical facilities in Heppner. Also listed are the local schools, the school district office, the Kinzua Mill site, the downtown area, the water and sewer system, the Heppner Fire Department, and the Hospital. The Emergency Operations Center, operated by the Morrow County Sheriff's Department is also within the Heppner City limits.

Environment and Land Use

Heppner is located in a deep canyon at the confluence of four creeks, Willow, Hinton, Balm Fork and Shobe Creeks. The dam at Willow Creek Reservoir controls the flow of Willow and Balm Fork. Since the completion of the dam in 1983 damage from flooding has been greatly reduced in the Willow Creek Valley.

Heppner offers recreation in the various City Parks and the Fairgrounds. The Willow Creek Water Park and reservoir are areas for water sports activities and the Willow Creek Golf Course and tennis and basketball courts are areas for outdoor sports. Other significant land uses in the area are agriculture and timber industries, forest recreation, and open space. The Blue Mountain Scenic Byway and Bikeway goes through Heppner.

Flash flooding has the most impact on the City. During these events the City could lose lives, houses, businesses and infrastructure as the flood waters rage through the downtown area. The City has a Flash Flood Plan, included in Appendix B, to help mitigate and plan for flash flood emergencies. There are no significant issues with the following natural hazards: earthquake, volcano, landslides, wildfire, windstorm, and winter storms. Drought affects the local economy as the hardships of the agricultural economy are closely tied to the local economy.

Hazard Analysis and Risk Assessments

Morrow County has conducted a thorough risk analysis of the eight listed natural hazards. Drought, windstorm and winter storm affect large portions of the County and take in Heppner with its affects. These risks do not vary from those risks facing the entire County. Volcano, Earthquake and landslides are also natural hazard events that have the potential, although not so often, to affect Heppner in a way not greater than in the County as a whole, therefore, those risks will also not be separately analyzed.

Flood and Wildfire have the highest potential to affect Heppner, which is why Heppner has a Flash Flood Emergency Plan and has collaborated with the development with the County-wide Community Wildfire Protection Plan. Nevertheless, Heppner does not consider the risk to the City as a variance from the County-side risk analysis. Heppner does participate with the NFIP program and complies with and enforces the flood plain development regulations as provided in Heppner's floodplain ordinances.

The City of Heppner has done extensive storm water management during the past year. They have added three large catch basins along two streets to mitigate runoff to Willow Creek. Two large swales have been built one along Willow Creek and one along Hinton Creek. Several culverts have been replaced and drainage improved along the steepest streets.

This section contains documentation related to any hazard occurrence or emergency declaration in Heppner since 2006.

In May 2011 Heppner was inundated with what was determined to be the some of the heaviest rainfall in the town's history – $\frac{3}{4}$ of an inch in 15 minutes. The Willow Creek Dam was able to control a large amount of the flow and allowed Shobe and Hinton to flow at high levels, containing some of the damage. The City Public Work's Crew coordinated with several local public officials to mitigate the damage in the area. The Fire Chief oversaw the efforts. (See attached)

In June of 2011 a freak snowstorm followed by a wind storm created a flood situation across the county. Hinton Creek was the most severely affected, several private residential bridges were washed out and debris collected around the city bridges. The City and County public works department cleared the debris. The City Fire chief coordinated the efforts. (See attachment)

In December, 2012 Heppner experienced a wind Storm, several trees were knocked down. The City public works crew and a local telephone company worked together to clear the right of ways and restore access. (See attachment)

Action Items

Attachments A-1, A-2, A-3

Addendums

B-1 Heppner Flash Flood Emergency Plan

B-2, 3, 4 Hazard occurrences

B-5 Annual Public Outreach Letter

B-6 Public notice

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 – for Multi-Hazard #1; or FH #3 – for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)
F FH H - LT, ST		Goal 2
Proposed Action Title:		
Continuing public awareness campaigns about Natural Haz. Mitigation		
Rationale for Proposed Action Item: (What critical issues will the action address?)		
Citizens in Heppner and other Willow Creek drainages need to be continually educated about what to do in case of a massive Flash Flooding event situated in the area. The citizens need to know what to do when the Flash Flood sirens go off.		
Ideas for Implementation:		
Public awareness campaigns for residents of the assisted living areas, schools, and places where the public gather, such as the public pool, churches, stores, etc.		
Coordinating Organization:	City of Heppner + Five districts	
Internal Partners:	External Partners:	
Heppner, County Emergency Managers, Fire districts, etc	Emergency Management	
Timeline:	If available, estimated cost:	
Short Term (0-2 years):	Long Term (2-4 or more years)	
X	X	
Form Submitted by:		



Mitigation Action Progress Report Form

Progress Report Period	From Date: 5/23/2006	To Date: 2/20/2014
Action/Project Title	Continuing public awareness about NHMP	
Responsible Agency	City of Heppner, County Emergency Managers	
Contact Name	Kim Cutsforth	
Contact Phone/Email	541-676-9618 Heppner@centurytel.net	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project canceled <input checked="" type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: ongoing <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

the city annually holds an information campaign through mailing and meeting to inform the residents of flood hazards

2. What obstacles, problems, or delays did the project encounter?

low public participation

3. If uncompleted, is the project still relevant? Should the project be changed or revised?

the project is ongoing, with annual letter to residents explaining flood hazards and public information.

4. Other comments

the City manager is continually working with FEMA for education and NFIP for flood plain mgmt

H06-02

2.3, 7.10

MH-ST, LT

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 – for Multi-Hazard #1; or FH #3 – for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)	
MH-ST		Goal 2 Goal 7	
Proposed Action Title:			
Recruitment and Training of Red-Cross Volunteers			
Rationale for Proposed Action Item: (What critical issues will the action address?)			
Established emergency response agencies in the County have very limited staff and are unable to take advantage of all of the opportunities there are for decreasing the risk of damage from hazards.			
Ideas for Implementation:			
Partner with other organizations to provide public education and training for hazard mitigation. This should include recruitment and training of volunteers.			
Coordinating Organization:		Red Cross	
Internal Partners:		External Partners:	
Emergency Management		Federal, State, local agencies, Volunteer groups	
Timeline:		If available, estimated cost:	
Short Term (0-2 years):	Long Term (2-4 or more years):		
X	X		
Form Submitted by:		ET, Planning Staff after Heppner Flash Flood Exercise, approval of Linda Curtis	

Mitigation Action Progress Report Form

Progress Report Period	From Date: <u>5/23/2014</u>	To Date: <u>2/20/2014</u>
Action/Project Title	<u>Recruitment & training of Red Cross Volunteers</u>	
Responsible Agency	<u>City of Heppner / Red Cross</u>	
Contact Name	<u>Kim Cutforth</u>	
Contact Phone/Email	<u>541-676-9618 - Heppner@centurytel.net</u>	
Project Status	<input checked="" type="checkbox"/> Project completed <input checked="" type="checkbox"/> Project canceled <input type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

no action taken.

2. What obstacles, problems, or delays did the project encounter?

no local chapter and the city is not
not should not recruit or train Red Cross volunteers.

3. If uncompleted, is the project still relevant? Should the project be changed or revised?

Should be changed to state-city to coordinate with
red cross to provide Natural disaster training to City Staff
and include schools

4. Other comments

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 – for Multi-Hazard #1; or FH #3 – for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)	
MH-ST		Goal 7 - Emergency Services	
Proposed Action Title: Improve emergency communications systems in The Willow Creek Valley			
Rationale for Proposed Action Item: (What critical issues will the action address?) Communications between emergency responders, ie, law enforcement, cities, and fire departments is patchy and there is no back up power.			
Ideas for Implementation: Improve emergency communication systems between cities and emergency responders. Provide back up emergency power systems			
Coordinating Organization:			
Internal Partners: Heppner, Lexington, Fone, Local Fire Dept's, Law Enforcement, etc.		External Partners:	
Timeline:		If available, estimated cost:	
Short Term (0-2 years):	Long Term (2-4 or more years)		
X			
Form Submitted by:		David DeMayo, Heppner City Manager to L.T.	



Mitigation Action Progress Report Form

Progress Report Period	From Date: 5/23/2010	To Date: 2/20/2014
Action/Project Title	Improve Emergency Communications Systems in the Willow Creek Valley	
Responsible Agency	City of Heppner, Morrow County Sheriff's Dept	
Contact Name	Kim Cutforth	
Contact Phone/Email	541.676.9618 Heppner@centurytel.net	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project canceled <input checked="" type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: <u>on going</u> <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

City Staff and Morrow City, Firedept all have radios cell phones, and an emergency public alert scanner

2. What obstacles, problems, or delays did the project encounter?

cost

3. If uncompleted, is the project still relevant? Should the project be changed or revised?

the project is complete to date but on going as new technology develops

4. Other comments

HEPPNER FLASH FLOOD EMERGENCY PLAN

Amended 5/22/2006

PURPOSE

This plan is intended to provide a systematic set of predetermined responsibilities and response actions necessary to ensure the safety of the citizens of Heppner in the event of a flash flood in the Willow Creek drainage system.

ASSUMPTIONS

1. The National Weather Service Doppler Radar located in Pendleton will provide advanced warning of thunderstorms capable of producing flash flood conditions.
2. The US Army Corps of Engineers Flood Alert System will provide a minimum of 20 minutes advanced warning before flood waters reach Heppner.
3. The public warning sirens furnished by the US Army Corps of Engineers will be in place and operational.
4. The programmable calldown capability provided by the CSEPP Alert and Notification System will be programmed to perform a flash flood specific automatic calldown of appropriate city, county, stated, federal, civic and private organizations.
5. The general public will be familiar with appropriate actions to take in the event of a flash flood warning and will follow directions.
6. Key response personnel will be familiar with their responsibilities. The Heppner Incident Commander (IC) will be the Heppner Fire Department (HFD) Chief, unless he is unable to assume his duties. The Assistant Chief of the HFD will assume these duties in his absence.
7. The City of Heppner will authorize County agencies (the Morrow County Sheriff's Department and/or the Morrow County Emergency Management Department) to initiate the Alert and Warning Process and the initial response sequence. The US Army Corps of Engineers Flood Warning System, Level Three (3) will be the step at which the Emergency Operations Center (EOC) will be activated and the IC system for the City employed.
8. The Willow Creek Dam will control any flood surge coming down Willow Creek.

As amended 5/23/2006

15-1

9. Sufficient trained volunteers will be available to activate and American Red Cross Mass Care Shelter at Heppner High School.
10. The City of Heppner will negotiate Memorandums of Understanding among Morrow County, Columbia Basin Electric Coop (CBEC), and the US Army Corps of Engineers for the use of their facilities (the County Annex, CBEC Office, and the Corps office) to serve as rally points for citizens evacuating from the flood plain areas at risk.
11. The City of Heppner has determined which residences, businesses and public facilities are at risk from a flash flood.
12. All persons identified as living or working in the areas of the city identified as being at risk will be notified.
13. The Heppner Volunteer Fire Department will compile and maintain a list of all mobility and hearing impaired persons living within the threatened area.
14. The Morrow County Court will declare a State of Emergency and provide all available assistance to City officials.
15. The US Army Corps of Engineers will provide a dedicated radio system capable of assuring reliable communications between the EOC and the Corps of Engineers Operations Center at The Dalles.

CONCEPT OF OPERATIONS

To facilitate a rapid evacuation of threatened areas, the City of Heppner will be divided into predetermined sectors. When the US Army Corps of Engineers' Flood Warning System indicates a flash flood is imminent, warning sirens and alerting systems will be activated by the Morrow County Sheriff's Department 911/Dispatch Center (see Enclosure 1, Dispatch Procedures and Enclosure 2, Calldown Roster). All persons in the identified threat sectors will move immediately to the nearest high ground. Once personnel at risk have reached high ground (a minimum of 20 feet above the upper flood plain limit), they will move by the most direct route possible to the sector Rally Point. The City will provide a representative at each Rally Point to direct operations. If there is not sufficient time to evacuate the St. Patrick's Senior Center, residents will be moved to the structure's top floor (see Enclosure 3, At Risk Zone and Enclosure 4, Evacuation Sectors and Rally Points).

If time permits, the Morrow County Sheriff's Department, in coordination with other agencies (Oregon State Police, the US Forest Service, the US Army Corps of Engineers, Oregon State Department of Transportation, Morrow County Public Works Department, Columbia Basin Elect Coop, and Morrow County Grain Growers, etc.), will block roads leading into the drainages at risk from flash flooding (see Enclosure 5 Drainage Isolation Plan).

As amended 5/23/2006

B-1

When the flood surge has passed, the Incident Commander present in the EOC will initiate will initiate search and rescue operations employing the Volunteer Fire Department and Public Works Departments. The Incident Command System (ICS) will be used to coordinate operations. Initial efforts will be directed toward locating victims and identification of hazards (live down power lines, biological and chemical hazards, weakened structures, debris dams, etc.). During the operations in the flood zone, the EOC will continue to monitor weather conditions in the flood zone to ensure that additional storm cells do not cause secondary flooding.

As soon as the Morrow County Court achieves a quorum, it will authorize release of the pre-formatted Declaration of a County State of Emergency and Request to the Governor for a State Emergency Declaration. The County will immediately begin coordination with the Operations Center at The Dalles Dam, restoration of the Flood Alert Warning System as required and preliminary emergency disaster relief support pending authorization to commit State and Federal resources

Once initial rescue and hazard assessment operations have been completed, emphasis will shift to recovery and damage assessment operations. Safe movement corridors will be established to facilitate movement of persons requiring shelter from the Rally Points to the Mass Care Shelter at Heppner High School. Initial priority of recovery operations will be devoted to locating and extracting the remains of any casualties, opening Highway 74 by cleaning debris and installing temporary bridges as required, mitigating identified hazards to recovery workers, addressing public health concerns (exposure to sewage, contaminated drinking water, dead animals, etc.) and restoring infrastructure support (power, telephones, potable water, sanitation systems and secondary roads and streets)

As amended 5/23/2016

81
Resolution No. 641-06

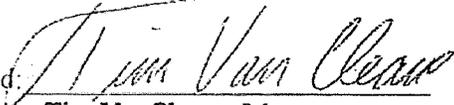
A Resolution Adopting The Heppner Flash Flood
Emergency Plan As Amended May 23, 2006

WHEREAS, the Heppner Flash Flood Emergency Plan, jointly prepared by both the Morrow County Emergency Operations Center and the City of Heppner has been previously adopted by the City (Resolution 258-96), and amended on January 28, 2005, and

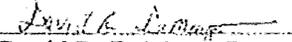
WHEREAS, it is necessary to make significant changes from time to time, and that these changes need to be affirmed by the City Council, and the plan is again being amended (Exhibit A attached).

THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF HEPPNER, OREGON, THAT THE HEPPNER FLASH FLOOD PLAN, AS AMENDED AS OF June 12, 2006, IS HEREBY ADOPTED FOR USE BY THE CITY OF HEPPNER, OREGON.

INTRODUCED AND ADOPTED this 12th Day of June 2006.

Approved: 

Tim VanCleave, Mayor

Attest: 

David R. DeMayo, Recorder

B-2

Heppner reels from rain, flooding

VOL. 130 NO. 19 10 Pages Wednesday, May 18, 2011
Morrow County, Heppner, Oregon

Heppner and surrounding areas are still feeling the shock from the severe storm that crossed the region last Saturday afternoon.

One Heppner resident reported rainfall of 2.3" between 8 a.m. Saturday and 8 a.m. Sunday. That measurement matches the official city measurement from the sewer plant but, says Heppner Fire Chief Rusty Estes, it doesn't account for the severity of the storm's beginning. According to Estes, Heppner received almost three-quarters of an inch of rain within the first fifteen minutes of the storm.

The heavy rainfall—some of the heaviest in the town's history—resulted in flooding all over the area. The Morrow County Sheriff's Office received multiple reports of flooding and debris in the road. Several instances of washed-out roadways and mudslides were also reported, though most roads remained passable.

In Heppner itself, city workers used trash pumps to remove water from two basements. Another house had a couple of feet of water on the ground level, said Estes. He also noted that workers who went to the city park to open the flood gates had to wade through knee-deep water on the sidewalk.

In the middle of the storm, the situation

became even worse when lightning struck a local man Rod Wilson's house. That's when the City of Heppner called for mutual aid from Lexington and Ione to help combat the fire. Once the fire was under control, helpers stayed and filled sandbags, which were then distributed to several Heppner homes.

Damage wasn't restricted to private property. Workers also had to respond to public offices such as City Hall, which had ceiling tiles coming down because of the volume of water. "Just about everybody got a little bit of water in something," said Estes. "You can't get that much water and not have damage."

As of Monday, the Corps of Engineers reported that Willow Creek was still in flood, with water so high that the docks in Willow Creek Lake came off their supporting beams and floated upstream.

The good news, though, is that Willow Creek Dam is still holding well. While Estes said it was the most water he's ever seen above the dam, water is still about 21 feet from the spillway.

"The dam is still doing well," said Estes. "It's still doing what it's supposed to do."

Hinton Creek causes some Heppner flooding

A cloudburst in the Hinton Creek watershed above Heppner caused some flooding and the evacuation of the grade school last Thursday.

A large amount of rain came down causing the creek to jump its banks just above the fairgrounds and bus barns on the east edge of town.

The fairgrounds office had done some sandbagging, but not enough to keep the water out as the water saturated the rug and also came through the exhibit area. The water also came fairly heavily through the Wilkinson Arena, causing some erosion.

Under the advice of Heppner Fire Chief Rusty Estes, Heppner Elementary School students were evacuated to the high school. The water had covered the football field and the parking lot just east of the grade school playground. Although the water never threatened to go into the school, officials felt it was getting too close and was better that the children moved to safety out of the area.

City crews, fire men and some of the Columbia Basin Electric crews monitored the Hinton Creek bridges through town to make sure debris did not build up under the bridges and cause flooding and other problems. A tree coming down the creek apparently severed a sewer line crossing the creek on the Adkins St. bridge.

Homes owned by



13-3

the Jack and Rene Yocom and John and Alita Nelson families were especially hit by the flooding.

Bridges across Hinton and also Willow Creek were reported washed out. The Willow Creek Dam controls the outflow of that creek preventing flooding, and the Corps of Engineers reportedly shut down output last Thursday to aid in the excess water from Hinton. The rainfall, along with snow melting in the mountains, is putting the water level at the dam at unusually high levels for this time of year.



Area battens down hatches in face of severe wind



Above: City workers and CenturyLink employees work to clear downed trees that fell across CenturyLink lines. This convergence of two fallen trees on Court Street in Heppner was just one example in a list of problems that ranged from lost shingles and gutters to fallen trees during the severe wind storm that tore through South Morrow County last week. There were even reports of a shed that blew off someone's property and past several houses before landing near a creek. According to Heppner City Manager Kim Cutsforth, the Lexington airport measured sustained winds of 45-48 mph during the storm, with gusts to near 80 mph. "It wasn't as bad as it could have been. The city crew got right out there...they were out late and up early in the morning. They did a great job," she said, though she added that she could tell local residents were feeling the stress of the constant wind and threat of damage. "I could tell there was a lot of anxiety from it." **Below:** A fallen tree in front of the Heppner library also caused some problems for city crews. —Photo by David Sykes and April Sykes



LIVING IN A FLOOD PLAIN – ANNUAL REMINDER

BACKGROUND:

Flash floods are common in the arid and semi-arid Western United States. Heppner, located in the Oregon high desert country is no exception. Four streams converge in Heppner: From the South of Heppner flowing North are Willow Creek, Balm Fork, and Shobe Creek. Northeast of Heppner is Hinton Creek which flows in a Northwest direction. Willow Creek and Balm Fork flow directly into the Willow Creek Reservoir behind the dam. Hinton and Shobe Creeks flow unfettered through the downtown; both join Willow Creek.

The dam was completed in 1983, creating the Willow Creek Reservoir. The famous flood of 1903 and other flash floods through the years served as motivation for the building of the dam. With the dam in place, flow of the Willow and Balm Fork Creeks is controlled. However, Shobe and Hinton Creek's flow are not. A large portion of downtown Heppner lies directly in the path (and flood plain) of Willow, Shobe, and Hinton Creeks.

FLOODING – IS THERE A PLAN?

Yes, the weather and creek flows are monitored by the Morrow County Emergency Operations Center in Heppner. When flooding is imminent an alarm operated by the Army Corps of Engineers sounds in Heppner. Residents living in the flood plain are expected to seek shelter in one of four locations on high ground: the Columbia Basin Electric Coop office, the Heppner High School, the County Annex building near Pioneer Memorial Hospital, and the Corps of Engineers office at the entrance to Lakeview Heights. These shelters will be manned to provide shelter, water, and food. Residents of the St. Patrick's Senior Center Apartments will be moved to the upper floor of the apartment building.

Once the flooding has ended, rebuilding/cleanup is usually the next step. Hence, the need for the National Flood Plain Insurance Program.

THE NATIONAL FLOOD INSURANCE PROGRAM AND YOU.

Most homeowners are aware that banks and other lending institutes require them to purchase flood insurance if their residence is located in a Special Flood Hazard Area (SFHA), i.e., 100-year flood plain area. What most people are

B-5

unaware of is that nearly one-fourth of the properties damaged by flooding lie outside of an SFHA. It just might be a good investment to have flood insurance even if you are not required to purchase it.

BUILDING AND REBUILDING IN AN SFHA.

As you might suspect, new construction in an SFHA is generally discouraged and special permits are required. When construction is permitted, very rigorous and detailed requirements are necessary. If a building is damaged so that more than 50 percent of the building must be rebuilt, and the building is located in an SFHA, it too must adhere to these requirements.

To determine if a building or other structure is located in an SFHA, please come to City Hall and we will inspect the Flood Insurance Rate Maps provided by FEMA with you to make a determination.

You can also pick up your zoning permit applications at City Hall. You must have an approved zoning permit or you normally will not be able to obtain a building permit. Please call us at 541-676-9618, or visit City Hall at 111 N. Main Street if you have questions.

We hope that this leaflet is a helpful reminder of the special elements placed on those dwellings in a flood plain. At the Heppner branch of the Oregon Trail Library, 444 N. Main Street, you will find County-wide final D-FIRM #41049C. It contains Heppner panels 140175, 0827/0831 and 0835. It also contains the Flood Insurance Study #41049CV000A. These CD's are available for the public to view.

ORS 468.700 and OAR 164.775: It is against the law to pollute streams. This includes chemicals, the dumping of debris, etc. Keep our waters clean!



The City of Heppner
PO Box 756
Heppner, OR 97836

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POSTAL CUSTOMER

B-6

PUBLIC NOTICE
Notice of Special City Council Meeting

The City of Heppner City Council will hold a special council meeting on Friday January 24, 2014 at 11:00 AM at Heppner City Hall, 111 N Main St. The purpose of this meeting is to discuss The City of Heppner's Pre-Disaster Mitigation Plan.

This meeting is open to the public and public input is encouraged. Immediately following this meeting, The City Council will hold a special goal setting meeting.

Published: January 22, 2014

PUBLIC NOTICE

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This meeting is open to the public and public input is encouraged. Immediately following this meeting, The City Council will hold a special goal setting meeting.

Published: January 22, 2014

City of Heppner Criteria for Involvement

In order to document involvement from jurisdictions within Morrow County and complete the plan update on schedule, it is suggested that the City of Heppner complete the following over the next year:

Establish a Mitigation Plan Steering Committee

- Establish the City of Heppner Pre-Disaster Mitigation Plan Steering Committee
- Identify and invite new participants and external partners (e.g. Red Cross, Hospitals, School Districts, etc.)

Develop a Public Involvement Strategy

- Establish strategies that encourage public involvement
- Outreach strategies may include public information workshops, city newsletters, and press releases

Collect Data

- Collect mitigation plan maintenance meeting agendas and minutes since 2006
- Collect documentation related to any hazard occurrences or emergency declarations in the City of Heppner since 2006
- Identify and document plan implementation activities, including completed projects and other "success stories"
- Collect any local, state, or federal studies or reports completed since 2006 if available

Important Steps for the City of Heppner

- Attend and participate in Morrow County's PDMP Steering Committee meetings
- Brief city administration on project
- Establish and convene a City of Heppner PDMP Steering Committee at least once
- Notify public with a Public Service Announcement – we can help write it and contact local news outlets
- Identify potential stakeholder groups

Steering Committee Involvement

The Steering Committee will be tasked with ensuring that there is adequate stakeholder representation from the community. Morrow County is committed to moving the process along in as efficient a manner as possible and will look to combine tasks and limit the total number of steering committee meetings wherever possible.

Project Outcome

Our primary measure of success for this project will be the adoption of an updated Morrow County PDMP. Ultimately it will be the process cities go through in the planning effort and the eventual implementation of the plans, not the plans themselves, which will be the true indicators of success resulting from this project.

Should you have any questions or concerns, please do not hesitate to contact Planning Director Carla McLane at cmclane@co.morrow.or.us or Associate Planner Layne Wolfmueller at lwolfmueller@co.morrow.or.us or at the office at 541-922-4624.

City of Heppner – Morrow County Pre-Disaster Mitigation Plan Update

Issue Summary

In conjunction with the Oregon Partnership for Disaster Resilience (OPDR), Morrow County is currently in the process of updating its Pre-Disaster Mitigation Plan (PDMP). This is a great opportunity for cities within the county to participate in the update process in order to maintain or acquire eligibility for federal funding to implement hazard mitigation projects locally. Consensus built through the inclusion of cities and other agency stakeholders throughout Morrow County will improve the plan implementation process as well as the final PDMP, and will ultimately aid the process of building more resilient communities.

Morrow County Multi-Jurisdictional PDMP Update

A Pre-Disaster Mitigation Plan forms the foundation for a community's long-term strategy to reduce disaster losses and break the cycle of disaster damage, reconstruction, and repeated damage. It creates a framework for risk-based decision making to reduce damages to lives, property, and the economy from future disasters.

The Federal Emergency Management Agency (FEMA) approved the current Morrow County PDMP on December 15, 2006. In accordance with the five-year FEMA update and re-approval requirement, the plan recently lapsed on December 15, 2011.

In order for a jurisdiction within Morrow County to individually maintain eligibility for FEMA's Pre-Disaster Mitigation and Hazard Mitigation Grant Programs, participation from the jurisdiction must be documented within the county's plan. The code of federal regulations mandates the following:

- Multi-jurisdictional Participation - **§201.6(a) (3)**: *Multi-jurisdictional plans (e.g., watershed plans) may be accepted, as appropriate, as long as each jurisdiction has participated in the process.*
- Multi-jurisdictional Risk Assessment - **§201.6(c) (2) (iii)**: *For multi-jurisdictional plans, the risk assessment must assess each jurisdiction's risks where they vary from the risks facing the entire planning area.*
- Multi-jurisdictional Mitigation Strategy - **§201.6(c) (3) (iv)**: *For multi-jurisdictional plans, there must be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan.*
- Multi-jurisdictional Plan Adoption - **§201.6(c) (5)**: *For multi-jurisdictional plans, each jurisdiction requesting approval of the plan **must** document that it has been formally adopted.*

This project is being funded through FEMA's Pre-Disaster Mitigation Grant Program; Planning Project for Mid-Columbia Gorge County PDMP Updates (Grant Number: EMS-2011-PC-0002).

CITY OF IONE

A Resolution Adopting the Morrow) RESOLUTION NO. 4-2016
County Natural Hazard Mitigation Plan)

WHEREAS, The City of Ione 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 Morrow County Court appointed a Steering Committee to guide the update of the Plan, which was originally adopted by the County in 2006, which consisted of 12 people representing various agencies and organizations in Morrow County to include the local fire protection districts, the Morrow County Emergency Manager, Morrow County Public Works, Local Emergency Planning Committee, the five communities of Morrow County, and Morrow Soil and Water Conservation District, all having a stake in natural hazard mitigation; and

WHEREAS, the Steering Committee met the following five times:

- February 23, 2012
- November 19, 2013
- March 4, 2014
- October 20, 2015
- April 5, 2016 (NHMP Cities Meeting)

WHEREAS, The City of Ione participated in the FEMA review process to update this Natural Hazard Mitigation Plan; and

WHEREAS, The City of Ione held a public meeting on January 14, 2014, to consider the Natural Hazard Mitigation Plan and the Ione City Annex; and

WHEREAS, after the first FEMA review process Morrow County made changes as required to the draft plan; and

WHEREAS, after the second FEMA review process, FEMA approved the draft plan, and the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X officials have reviewed the “Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan” and pre-approved this update contingent upon this official Adoption by Resolution of the participating governments and entities;

NOW THEREFORE BE IT RESOLVED THAT THE CITY OF IONE ADOPTS BY RESOLUTION THE “MORROW COUNTY OREGON MULTI-JURISDICTIONAL NATURAL HAZARD MITIGATION PLAN” AS AN OFFICIAL PLAN; and

BE IT FURTHER RESOLVED, MORROW COUNTY WILL SUBMIT THE ADOPTION RESOLUTIONS TO THE OREGON OFFICE OF EMERGENCY MANAGEMENT AND FEDERAL EMERGENCY MANAGEMENT AGENCY, REGION X OFFICIALS TO ENABLE THE PLAN’S FINAL APPROVAL.

Section 1 Title of Resolution:

This resolution shall be known, and may be cited as “The 2016 Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan.”

Section 2 Attached Document:

The Morrow County Natural Hazard Mitigation Plan, which includes five Chapter Sections of the Plan, eight Natural Hazard Annexes, five City Annexes, and Appendices “A” through “G” arranged as follows and attached:

Chapters of The Plan:

- Section 1 - Introduction
- Section 2 - Community Profile
- Section 3 - Natural Hazard Risks
- Section 4 - Mission, Goals and Action Items
- Section 5 - Plan Implementation and Maintenance

Hazard Specific Annexes:

- Drought
- Earthquake
- Flood
- Landslide
- Volcano
- Wildfire
- Windstorm
- Winter Storm

City Annexes:

- Boardman
- Heppner
- Ione
- Irrigon
- Lexington

Resources Appendices:

- A - Resource Directory
- B - Planning and Public Process
- C - Regional Natural Hazard Public Opinion Survey
- D - Existing Plans, Policies, and Programs
- E - List of Acronyms
- F - Action Items
- G - Maps

Section 3 Effective Date:

To respect the work done by the Steering Committee, the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X, The City of Ione deems there to be an emergency. This Resolution and its attached document, the Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan, is to be effective on January 1, 2017, which is after adoption by Morrow County and all five communities.

ADOPTED BY THE CITY OF IONE CITY COUNCIL THIS 13th DAY OF DECEMBER, 2016.

By: 
Linda LaRue, Mayor

Attested By: 
Kim Carter, City Recorder

IONE, OREGON

Annex to the Morrow County Multi-jurisdictional Natural Hazard Mitigation Plan

December 2016

This update to the 2006 Pre-Disaster Mitigation Plan (PDMP) is a result of the Mayors attendance at county-wide meetings, discussion at several regular council meetings and two meetings held for public comment. Councilors Deacon Heideman, Mark Anderson, Joel Barnett, Beverly Crum, Kristy Jones, Tobey Garrett and Mayor Linda LaRue were in attendance at all council meetings.

Community members attending were: Gary Walls, Torrie Rice, Mark and Taranna Patton, Charles Davidson, Arlynda Gates, Virgil Morgan and Ed Rietmann. Carla McLane, Lane Wolfmueller and Lori Timmons with Morrow County Planning Department were in attendance at the first meetings to bring the council up to date on the process and answer any questions.

The Councilors have participated in the review of the 2006 PDMP and have worked closely with Mayor LaRue in identifying necessary updates. City employees Curtis Thompson and Kim Carter have also contributed to the discussions. This review process has brought the plan to the forefront and allowed the current council to become familiar with it. All now understand that ongoing review is very important as council members change.

After each of the eight Natural Disasters identified in the 2006 plan were reviewed; stakeholders agreed that lone's risk in each of the hazards do not vary from the general discussion in County plan. This determination will allow the City to rely on the risk assessment completed by County stakeholders. The plan, now the Natural Hazard Mitigation Plan (NHMP) will be monitored through twice-yearly meeting of the County-wide Stakeholders of which lone will participate as a member.

Human Population

There is a fairly homogeneous population in lone; (96.4% one race, 86.6% white, .9% American Indian/Alaskan, .6% other Asian, and other 8.2%) The age distribution, as of 2010 Census is: 24.6% or 81 persons under the age of 18; 8.8% from ages 18 to 24, 19.5% from age 25 to 44, 32.5% from ages 45 to 64; and 16.1% who were over 65 years of age. The males outnumber the female population 171 to 159 and the median age is 38.3. The population is 330 according to the 2010 Census. Based on census figures there are approximately 88 young and old that may be at risk in the event of a natural disaster.

Economic Assets

The following businesses make up the lone business community, the main street businesses include: The lone Market, a combination grocery store, delicatessen and liquor store; Wheatland Insurance, a branch of Bank of Eastern Oregon, in business since 1945; the Post Office and the lone Rural Fire Station. Route 74 a restaurant-lounge is located on the edge of town on Highway 74. The Historic Woolery House Bed and Breakfast is located on Second Street. The West end of Main Street sees agriculture come to town; Morrow County Grain Growers operates a fertilizer-agronomy division to meet the needs of the area farmers; they also maintain a seed plant and grain storage elevator on the East end of Main Street. A nineteen acre area was annexed into the City in 2012, it is zoned as light industrial (M Zone) and currently has three businesses including; Holtz Farm Headquarters, IRT Trucking and a fertilizer business building in process. The two established businesses employ local residents as well as some from outside of the area that have moved to town. Lone has an agricultural bases economy as it is surrounded by dry land and irrigated farms, including cattle and a large dairy. The dairy and lone School District are of the largest employers in lone. The lone community took a large step when they opted to withdraw from the Morrow County School district and form our own district using the original district property lines. The lone district then formed a Charter School; which has allowed growth and flexibility without the threat of closure due to our size. This move brought our community even closer and has brought some growth to the community as well.

Cultural & Historic Resources

One of the features that make Lone unique is the buildings that make up the heart of the Lone. These buildings include: The Woolery House Bed and Breakfast, The Lone Market, the City Hall and Library and the American Legion Hall. Adjacent to the City Park, a large railroad warehouse houses the City shop on the East end and a beautiful stage area on the West end. The repurposing of this building has made a great venue that serves as the center piece for the annual July 4th Celebration, which includes concerts held each year. There have been two to three weddings in the park as well as family reunions, Music in the Park and many family picnics. Many people passing through town stop to relax in the cool setting that also provides nice picnic tables and restrooms. There are three active churches within the City limits, Lone Community Church, St Williams Catholic Church and the Christ Alone Lutheran Church.

Over the past year a mammoth tusk was unearthed near the City of Lone. A paleontology team from University of Oregon came and removed the tusk and took it for study and will return it to the school in the future. Several Lone High School students were allowed to help along side of the team.

Infrastructure & Critical Facilities

Over the years, there have been many improvements in our community that have greatly reduced the amount of damage to property caused by flash flooding. The fields that feed into Rietmann and Lorraine Canyons have become less of a threat due to a change in farm practices in this area. With the farmers using "no till" methods, the ground is more stable and less apt to move during a heavy rainfall. Any water that does run down those two canyons will flow into the drain ditch after it passes through a much larger culvert under Highway 74. The water then flows west of town to an open area and dissipates into the ground and into Willow Creek.

The Fire District requires burning permits for all burning. This is a safe guard against uncontrolled fires. Burn bans are during the hottest, driest months in an attempt to prevent fires. The danger of fire increases during wheat harvest when it is hot and the wheat is ripe and dry. The overheated equipment contributes to sparking the fire. In some cases these fires could spread into town but to date this has not happened.

Drought has a profound affect on lone in that the hardships of the agricultural economy are reflected in the economy in general. There have been no significant issues with the remaining natural hazards to date such as: earthquake, volcano, landslides, windstorms or thunderstorms.

lone has three City parks; Mullins Park, the Horseshoe Park and a large City Park. There are picnic tables and very nice restrooms on site. There are six RV spaces with power and water available for short term stays at a nominal fee pre night. There are also two private RV Parks that offer full hookups for those wishing to stay longer. The City has two wells for domestic water but currently rely on the main well to supply water to approximately 200 users. The city also sells large quantities of water to farmers for a variety of farm uses. The city maintains three reservoirs for water storage. We have a sub-division within the city limits that started with nineteen lots ranging in size from 1 acre to 5 acres. Since 2012 there have been four lots sold and four homes, one more lot has been sold but is still in escrow; leaving fourteen lots available for sale at this time.

Our rural fire department is very well trained with up to date equipment and the fire station is located within the city limits. lone is fortunate to have three EMT's, a well equipped ambulance and several volunteer ambulance drivers as we live eighteen miles to the nearest medical facility.

Environmental Assets

lone takes great pride in our three parks and enjoy hosting the Annual July 4th Celebration. The City Park is used for two to three weddings per year, Music in the Park, Family Reunions and just people enjoying the relaxing atmosphere. Our surrounding farms are a very important element to our City and we are one to keep our community strong.

The City has presented three action plans that were determined to be on-going to assure pre-mitigation can be met.

- ◆ Increase flow under Green St off Highway 74
- ◆ Prevent Run-Off from pooling behind Main Street businesses.
- ◆ Continue to meet the Flood Plain Management requirements.

2.2

I N06-01

Action Item Proposal Form **IONE**

Proposed Action Item Identification: (Example MH #1 – for Multi-Hazard #1; or FH #3 – for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.) <i>Goal 2: Education and outreach</i>
Proposed Action Title: Education / Training of FEMA requirements		
Rationale for Proposed Action Item: (What critical issues will the action address?) <i>There is a complete lack of knowledge in Ione concerning what is required and how/if/when anyone can develop, remodel, etc. in the floodway and flood plain.</i>		
Ideas for Implementation: <i>2.2</i> <ul style="list-style-type: none"> • Training for City officials - • Review of Ione's Flood Plain Overlay Zone, • Update of Ione's Comp. Plan to reflect new Floodplain Maps. <i>land zone</i> 		
Coordinating Organization:	FEMA, DLCD... <i>Ione</i>	
Internal Partners:	External Partners: <i>State office of Emergency Management DLCD, flood plain section</i>	
Timeline:	If available, estimated cost:	
Short Term (0-2 years)	Long Term (2-4 or more years)	
Form Submitted by: Marc Bruno via Lori Timmons		

Mitigation Action Progress Report Form

Progress Report Period from Date July 10, 2008 to Date December 31, 2013

Action/Project Title FEMA Requirements-Education & Training
Responsible Agency City of Ione

Contact Name Linda LaRue, Mayor

Contact Phone/Email 541-422-7414 City Hall 541-422-7468-Mayor

Project Status Project Completed: yes
Project canceled
Project on schedule
Anticipated completion date: on-going as councilors & staff change
Project delayed
Explain _____

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?
Ordinance 3-2007-Flood Damage Prevention, an amendment to Zoning Ordinance #158 was adopted November 13, 2007. It spells out the duties of the City Council and gives very specific guidelines for the development permit application and related required new structure and substantial improvement.
2. What obstacles, problem, or delays did the project encounter?
Finding good training materials, the time and best venue for training employees and especially volunteer councilors continues to be a challenge. We are not large enough to have a city administrator to act as our administrator so we rely on volunteers and expect our recorder to oversee some of these areas, but to date that has not been successful.
3. If uncompleted, is the project still relevant? Should the project be changed or revisited?
Even though the ordinance is in place and the mayor has received some administrative training, changes in the council will require this to be an on-going project.
4. Other Comments
Mayor LaRue has taken Webinar training through STAR; she also attended a National Regional Floodplain Management Conference, September, 2013. The conference was helpful and the mayor made some contact with other communities that will prove helpful.

IN06-02

1.1, 5.2

Action Item Proposal Form **IONE**

Proposed Action Item Identification: (Example MH #1 – for Multi-Hazard #1; or FH #3 – for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)
Proposed Action Title:		Goal 1: Protection of Property Goal 5: Structural Projects
Rain event/Flood control		
Rationale for Proposed Action Item: (What critical issues will the action address?)		
IONE has no flood control mitigation for drainage from Rietman + Lorraine canyons except for a "ditch" and a pump & hose system operated by passersby during an event; Unmanned, city residences and businesses do flood. Colliers Market had 6" of water accumulate in 2004. County road acts as a dam.		
Ideas for Implementation:		
<ol style="list-style-type: none"> 1. Improve the drainage system. 2. Work w/ County to allow drainage ^{under} County Road. 3 Allow drainage to operate automatically, w/out the need for haphazard pumps + hoses. 		
Coordinating Organization:	IONE citizens, Morrow County	
Internal Partners:	External Partners:	
Morrow County Planning and Public Works Departments	State or Federal Resource Agency	
Timeline:	If available, estimated cost:	
Short Term (0-2 years)	Long Term (2-4 or more years)	
X		
Form Submitted by:	Marc Bruno, Ione Mayor via L.T.	

Mitigation Action Progress Report Form

Progress Report Period from Date July 10, 2008 to Date December 31, 2013

Action/Project Title Rain Event/Flood Control
Responsible Agency City of Ione

Contact Name Linda LaRue, Mayor

Contact Phone/Email 541-422-7414 City Hall 541-422-7468-Mayor

Project Status Project Completed: yes
Project canceled
Project on schedule
Anticipated completion date: monitoring and continuing good practices will be on-going
Project delayed
Explain _____

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?
Two factors contributed to success; Morrow County road department and ODOT replaced two small culverts with a much larger size culvert. One under Hwy 74 and one under Green Street, this allows water to be directed into a drain ditch that was deepened and cleaned allowing water to stay within the banks through the city. The water then goes into an open area where it dissipates and or goes into Willow Creek without damage to property owners. The farmers have also played a big part in runoff control; they have changed their farming practice to no-till. This leaves some vegetation on top of the soil thus allowing the ground to absorb more moisture thus slowing the danger of erosion and runoff.
2. What obstacles, problem, or delays did the project encounter?
There were delays related to our request for replacement of culverts falling after the new fiscal year started so we had to wait a year, there was discussion about responsible party and levels of decision making.
3. If uncompleted, is the project still relevant? Should the project be changed or revisited?
We continue to monitor this problem and in August, 2010 there was heavy rains that caused minor pooling in the back of the grocery store. When interviewed the store owner stated the flooding was minor but small compared to the past. He is currently keeping sand bags near the back of his store just in case.
4. Other Comments
The City will look at the low areas behind the store for possible resolution to this issue; there is a possibility that doing some fill and leveling to redirect the water will correct.

NEW

IN14-03

Mitigation Action Implementation Worksheet

Jurisdiction: City of Lone

Mitigation Action/Project

Title: Increase Flow under Green St. off Hwy 74

Background/Issue: This area can become plugged with debris during times of flash flooding related to heavy rains and run-off down both Rietmann and Lorraine Canyons.

Ideas for Integration: Replace existing culverts with a larger square concrete culvert allowing more flow.

Partners: ODOT and Morrow County Road Dept.

Potential Funding: STIP Grant from ODOT

Cost Estimate: City of Lone share estimate \$10,000

Benefits: This will prevent mud and water from backing up and entering the downtown businesses and nearby residences.

Timeline: 2014-2015 fiscal year depending on successful STIP Grant Award.

Priority: HIGH

Worksheet Completed

By: Linda LaRue, Mayor

IN14-04

Mitigation Action Implementation Worksheet

Jurisdiction: City of Lone

Mitigation Action/Project

Title: Prevent Run-Off from Pooling Behind
Businesses on Main Street

Background/Issue: Historically water pools in the alley behind
the Lone Market during heavy rains and
enters the store unless sand backs are
used to block the flow.

Ideas for Integration 1. Install 1 or 2 French drains in the alley to
collect run off from the City Shop and other
flow. 2. Install continuous rain gutter on the
City Shop to redirect water to City park area.

Partners: N/A

Potential Funding: STIP Grant from ODOT- If not successful
City Budget from State Street Funds.

Cost Estimate: Estimate- \$2,500-\$3,000

Benefits: Losses avoided and relief of potential
liability to the City.

Timeline: 2014-2015 fiscal year .

Priority: HIGH

Worksheet Completed

By: Linda LaRue, Mayor

IN14-05

Mitigation Action Implementation Worksheet

Jurisdiction: City of Lone

Mitigation Action/Project

Title: Continue to meet the Flood Plain Management requirements by Adhering to the City Flood Damage Prevention Ordinance #3-2007.

Background/Issue: There has been a larger than typical turn over of the City Recorder position which resulted in decline in procedures; this is improving as the position has stabilized.

Ideas for Integration Budget funds to send at least one councilor and the recorder for training/conference. Continue utilization of Webinar Offerings.

Partners: Morrow County Planning Department, FEMA/STARR, State and Federal Resource Agency

Potential Funding: City Budget/Grants when available.

Cost Estimate: Budget \$500 per year

Benefits: Continue to develop City while assuring
compliance with FEMA Floodplain
Management. Prevent increase in flood
insurance rates.

Timeline: on-going

Priority: HIGH

Worksheet Completed

By: Linda LaRue, Mayor

Call to Order

Pledge of Allegiance

Roll Call

Bills/Audit Trail Report

Minutes

Financial report

Guests: Brad Baird with Anderson and Perry

New Business

- 4-H Permits
- McElligott Development Permit
- Public input for Natural Disaster Mitigation Plan
- Waste water feasibility study results
- MCGG Main line extension
- Resolution 1-2014
- Permits required for use of RV as sleeping quarters?
- Adopt Budget Calendar
- School Clean Up/ Community Clean Up

Old Business

- Yellow Building demolition set for April 4-5
- Haul street materials to 8 mile on March 17
- Emergency Operation Plan update/ LEPC meeting March 18 (Councilor Crum)
- Past Due water accounts
- Planning meeting March 12, 2014 at Ione Community Church 6 PM

Reports

- Mayor Report
- Maintenance Report
- Recorder Report

Other

Adjourn

Next Meeting April 8, 2013

City of Ione
February 11, 2013
AGENDA

Call to Order

Pledge of Allegiance

Roll Call

Bills/Audit Trail Report

Minutes

Financial report

Guests:

New Business

- Pre Disaster Mitigation Plan
- Senate Bill 1531 Medical Marijuana Dispensary
- Planning meeting/set date before March 17

Old Business

- Yellow Building demolition
- Clean up street materials, haul to 8 mile
- Intergovernmental Agreement with County/Wheat Street Extension

Reports

- Mayor Report
- Maintenance Report
- Recorder Report

Other

Adjourn

Next Meeting March 11, 2013

City of Ione
January 14, 2013
AGENDA

Call to Order

Pledge of Allegiance

Roll Call

Bills/Audit Trail Report

Minutes

Financial report

Guests: Ray Koch, Torie Rice

New Business

- Emergency Operations Plan meeting, January 20, 2014
- Pre Disaster Mitigation Plan meeting, February 11, 2014 at 6 PM
- City Cell Phone purchase
- Appoint Budget officer, budget committee
- Review Audit

Old Business

- Yellow Building Destruction changes
- Clean up street materials, haul to 8 mile
- Wheat Street Extension
- Dump truck inspection results

Reports

- Mayor Report
- Maintenance Report
- Recorder Report

Other

Adjourn

Next Meeting February 11, 2013

Minutes

Meeting

Ione City Council

Regular Monthly

December 10, 2013

Called to order at 6:00 pm by Mayor LaRue

She then led the Pledge of Allegiance.

Roll Call:	Mayor LaRue- P	Councilor Anderson- P
	Councilor Heideman- A	Councilor Garrett- A
	Councilor Jones- P	Councilor Barnett- P
	Councilor-Crum-P	

Recorder: Kim Carter- A	Maintenance: Curtis Thompson- P
--------------------------------	--

Guests:

Bills: Bills were reviewed by council members. Councilor Anderson moved to approve the bills, Councilor Crum seconded. Unanimous approval.

Audit: The audit is complete. Things went well. The auditors were here for 3 days conducting the audit. There were a few minor issues but nothing major in their findings.

Minutes: Meeting minutes from November council meeting and the special meeting on November 19, 2013 were reviewed. Councilor Anderson moved to approve the minutes and Councilor Crum seconded. Unanimous approval.

Financial Reports: The transfer by Resolution 6-2013 transferring \$11,000 from Contingency to Material and Services in the General Fund was completed and now reflects on the financial reports. We are over in our Insurance and Bonding due higher insurance costs. Councilor Crum moved to approve the reports, Councilor Jones seconded. Unanimous approval.

NEW BUSINESS

Pre Disaster Mitigation Plan: A copy of Morrow County Pre Disaster Mitigation Plan update and Interview summary from 2006 with previous Mayor Mark Bruno was given to the council. The plan is concerned with natural disasters and what can be done to mitigate them. Flooding has always been a concern but several projects have been completed to decrease the impact if there were to be a flood. In February we will conduct public meetings to take input on our plan. If we do not have a plan in place FEMA may not assist our community in the event of a natural disaster, so it is very important this be given our full attention.

Dump Truck: A dump truck has become available through the Bank of Eastern Oregon. The city has considered in the past purchasing one for the city through state surplus. There is money available in Special Capital Outlay for this type of purchase. Curtis went to take a look at the truck but due to cold temperatures it would not start. He looked for fluid leaks and found one small one at the hydraulic hose but nothing of concern. The 12 foot dump bed is in good shape and the engine looks good even though the truck appears to be a late 1970s model. The price would be around \$5000. Councilor Anderson and Curtis will go to take a look at the truck on Thursday, December 12, 2013.

OLD BUSINESS

ODOT Street Grant: The City received the official letter from ODOT that we did not receive the SCA grant. Mayor LaRue suggested we save as much as possible and reapply for the grant in the next cycle.

T and C Building: Asbestos has been removed. There were 5 layers of roofing on that building. Alpine Abatement took the asbestos material with them. They did a great job and did it quickly. Great company to work with. Now the building needs to be torn down. Councilor Barnett will notify Sam, his brother, that he can begin salvage.

Ford Grant: Ford Family foundation offers leadership training to groups. As part of that training the group develops a plan to complete a community service project and the foundation contributes funds to that project.

Stump Removal: Curtis will get some information about the cost of renting a grinder to remove several stumps around town.

Wheat Street Extension: Mayor LaRue has attempted to contact the county about working on an intergovernmental agreement for gravel. She would also like to discuss with them the possibility of contracting with them grade some roads when they are working in our area. Curtis spoke with Tim Holtz and there may be some changes from the Holland request.

Mayor Report: Mayor LaRue is still participating in the Economic Development task force. The pipeline project has been delayed. It may be up to a year before we see workers looking for housing. RV spaces will be one thing that the workers will be looking to find. Councilor Anderson asked about temporary septic options for the City RV Park. Mayor LaRue will check into that possibility.

Maintenance report: Curtis has been working in the shop on equipment during the cold weather. He has been putting up Christmas lights. There are a few more that need to put up.

Recorders report: Kim was absent.

Other: Councilor Jones asked about progress on the city web site. Mayor LaRue met with Heidi Nelson today about getting the site up and running. A lot of progress was made in planning and things should be moving forward soon. Councilor Anderson asked about talking with property owners to make a trail to offer a place for people to walk other than the highway, Emert and Ella Roads. There may some grant monies available for projects like this.

Meeting adjourned at 7:20 PM.

The next meeting will be January 14, 2014

Respectfully Submitted,

Kim Carter
City Recorder

RESOLUTION NO. 16-31

ADOPTING THE MORROW COUNTY NATURAL HAZARD MITIGATION PLAN

WHEREAS, The City of Irrigon 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 Morrow County Court appointed a Steering Committee to guide the update of the Plan, which was originally adopted by the County in 2006, which consisted of 12 people representing various agencies and organizations in Morrow County to include the local fire protection districts, the Morrow County Emergency Manager, Morrow County Public Works, Local Emergency Planning Committee, the five communities of Morrow County, and Morrow Soil and Water Conservation District, all having a stake in natural hazard mitigation; and

WHEREAS, the Steering Committee met the following five times:

- February 23, 2012
- November 19, 2013
- March 4, 2014
- October 20, 2015
- April 5, 2016 (NHMP Cities Meeting)

WHEREAS, The City of Irrigon participated in the FEMA review process to update this Natural Hazard Mitigation Plan; and

WHEREAS, The City of Irrigon held a public meeting on February 18, 2014, to consider the Natural Hazard Mitigation Plan and the Irrigon City Annex; and

WHEREAS, after the first FEMA review process Morrow County made changes as required to the draft plan; and

WHEREAS, after the second FEMA review process, FEMA approved the draft plan, and the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X officials have reviewed the “Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan” and pre-approved this update contingent upon this official Adoption by Resolution of the participating governments and entities;

NOW THEREFORE BE IT RESOLVED THAT THE CITY OF IRRIGON ADOPTS BY RESOLUTION THE “MORROW COUNTY OREGON MULTI-JURISDICTIONAL NATURAL HAZARD MITIGATION PLAN” AS AN OFFICIAL PLAN; and

BE IT FURTHER RESOLVED, MORROW COUNTY WILL SUBMIT THE ADOPTION RESOLUTIONS TO THE OREGON OFFICE OF EMERGENCY MANAGEMENT AND FEDERAL EMERGENCY MANAGEMENT AGENCY, REGION X OFFICIALS TO ENABLE THE PLAN'S FINAL APPROVAL.

Section 1 Title of Resolution:

This resolution shall be known, and may be cited as "The 2016 Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan."

Section 2 Attached Document:

The Morrow County Natural Hazard Mitigation Plan, which includes five Chapter Sections of the Plan, eight Natural Hazard Annexes, five City Annexes, and Appendices "A" through "G" arranged as follows and attached:

Chapters of The Plan:

- Section 1 - Introduction
- Section 2 - Community Profile
- Section 3 - Natural Hazard Risks
- Section 4 - Mission, Goals and Action Items
- Section 5 - Plan Implementation and Maintenance

Hazard Specific Annexes:

- Drought
- Earthquake
- Flood
- Landslide
- Volcano
- Wildfire
- Windstorm
- Winter Storm

City Annexes:

- Boardman
- Heppner
- Ione
- Irrigon
- Lexington

Resources Appendices:

- A - Resource Directory
- B - Planning and Public Process
- C - Regional Natural Hazard Public Opinion Survey
- D - Existing Plans, Policies, and Programs
- E - List of Acronyms
- F - Action Items
- G - Maps

Section 3 Effective Date:

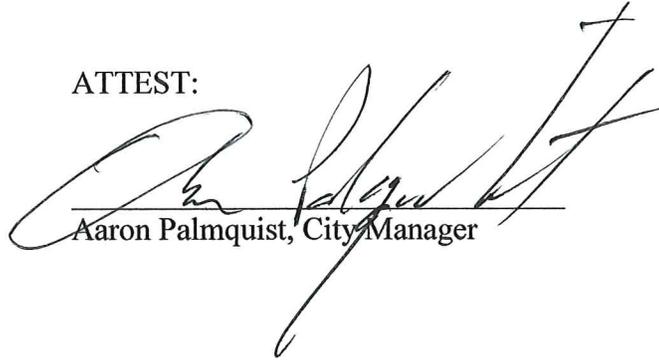
To respect the work done by the Steering Committee, the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X, The City of Irrigon deems there to be an emergency. This Resolution and its attached document, the Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan is to be effective on January 1, 2017, which is after adoption by Morrow County and all five communities.

ADOPTED BY THE COMMON COUNCIL OF THE CITY OF IRRIGON THIS 20th DAY OF DECEMBER, 2016.

SIGNED:

Sam Heath
Sam Heath, Mayor

ATTEST:


Aaron Palmquist, City Manager

IRRIGON, OREGON

Annex to the Morrow County Multi-jurisdictional Natural Hazard Mitigation Plan

December 2016





May 13, 2014

FEMA –Region X
Attn: Pre-Disaster Mitigation Program
130 228th ST SW
Bothell, WA 98021-9796

RE: City of Irrigon – Morrow County Pre-Disaster Mitigation (Natural Hazard) Plan Update

Dear FEMA:

The City of Irrigon continues to recognize the threat of natural hazards to our community members and their respective properties. The city is part of a broad county wide effort to update our PDMP processes and understanding. As part of the city's update our efforts are intended to not only identify areas or items needed to provide for a safe community in the event of a hazard but also keep individuals aware and current of changing times and situations.

Various items were taken into account as part of the evaluation and plan process. Since 2006 the city has aligned itself with the eight (8) natural hazards identified in the Morrow County Plan and has adopted such plan under Resolution No. 06-25 and our risk analysis has not changed and the city has not encountered any hazard events since reporting began. We are pleased to note that infrastructure and response by professionals and the public is adequate. The city will continue to align with Morrow County and meet later this fall for the semi-annual meeting. At this next regional meeting action items will be evaluated for progress and/or changes.

The city involved key individuals and organizations to ensure key and critical areas are represented and met. Over the course of the last six months the city has participated in monthly team meetings that included representatives from fire, chamber, public works, city council, city management, Morrow County Planning, and law enforcement. The city held a public meeting, following our notice process, on February 18, 2014. During these opportunities previous action items were evaluated with two (2) action items closed and completed with one (1) updated (wildfire and drought impacts). Four (4) new action items were added that deal with Emergency information broadcasting, power back-up to a warming station, back-up power to sewer lift stations, and emergency power for supply wells. Irrigon has not had a history of natural disasters but is well pre-paired as a result of training with CSEPP responses for the Umatilla Army Chemical Depot. Because of this well prepared training there is no need for training or education at this time. Action items noted above are included in Irrigon's Annex of the Morrow County's PDMP.

Additionally, the city participated in various Morrow County PDMP events and planning to continue to move the process along, working to combine tasks and direction wherever possible for a successful regional PDMP.

It should be noted that the City of Irrigon has also reviewed our Flood Insurance Plan and Maps. Currently the City of Irrigon and properties located within the city are not in a designated flood plain or any flood zone issues. However, in order to remain current throughout changing times the city follows our city code and ensures all land use and planning actions are followed accordingly.

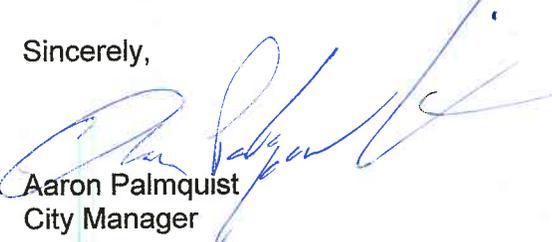
As part of the city's on-going review and analysis the following areas are noted.

- **Human Population:** There remains a fairly high percentage of Hispanics (34%-2010 census) and many elderly and disabled individuals remain significant. Communication broadcasting may be affected by windstorm and winter storms.
- **Economic Assets:** During power outages we may see an increase in need for food and fuel supplies that will not be effectively supported by our singular convenient store.
- **Cultural and Historical Resources:** Irrigon has assets that are beneficial, such as the Heritage Trail, Wildlife Refuges, cemetery, and Oregon Trail Spur that could be impacted by a wildfire.
- **Infrastructure and Critical Facilities:** Various infrastructure facilities are vital to the continued safety and health of Irrigon. They remain important and vital, Medical Clinic, Fire District Facility, Water Reservoir, two main supply wells, four schools, booster and lift stations, City Hall and a new library.
- **Environmental Assets:** Irrigon has two parks, which includes the main street park and Marina Park along the Columbia River.

Windstorm and winter storm are the two (2) hazards most impacting the city. During these events trees and power are disrupted, causing damage, possible evacuation, communication and transportation blockages. With the other six natural hazards Irrigon has not seen any impact. With these two know hazards the above listed action items were discussed and proposed to strengthen Irrigon's response and service during such an event.

For on-going processing and planning the City of Irrigon will continue to meet semi-annually with the Morrow County regional team on progress and planning. In addition, the City of Irrigon has placed various processes and standards within the Comprehensive Plan, Capital Improvement Plan, and facilitating a local process for emergency operations.

Sincerely,



Aaron Palmquist
City Manager



P. O. Box 40 • Irrigon, Oregon 97844
(541) 922-4624 or (541) 676-9061 x 5503
FAX: (541) 922-3472

Agenda
Natural Hazard Mitigation Plan
Irrigon Annex Portion
February 18, 2014

- I. Introduction and Purpose of this Discussion.
- II. Natural Hazard Mitigation and how it affects Irrigon
 - History of problems with natural disaster events
 - Previous Mitigation work
 - Action Items from 2006 Plan
 - Provide back up power for sewage system lift stations in Irrigon
 - Provide emergency back up for the City water system in Irrigon
 - Lessen wildfire and drought impacts in Irrigon
 - Review of other Natural Hazard Risks
- III. Discussion of Hazard Events in Irrigon in the last 7 years
 - Was the infrastructure adequate?
 - Was the response by professionals and public adequate?
 - Is there a need for more training or education?
- IV. The Community Profile Review. Are there changes to or new information regarding community social systems, especially organizations providing services to children elderly low income, businesses?
- V. Local Community Plans. Has there been recent changes to community plans in relation to hazard mitigation? Are there any programs or plans that should be reviewed and updated? Specifically to:
 - Comprehensive Plan
 - Capital improvement Plan
 - Emergency Operations Plan
 - Parks and Open Space Plan
 - Stormwater Management Plan
 - Floodplain Ordinances
- V. Action Items - discussion as to keep, add to or remove Action Items in Plan.
- VI. Wrap up

City of Irrigon – Morrow County Pre-Disaster Mitigation Plan Update

Issue Summary

In conjunction with the Oregon Partnership for Disaster Resilience (OPDR), Morrow County is currently in the process of updating its Pre-Disaster Mitigation Plan (PDMP). This is a great opportunity for cities within the county to participate in the update process in order to maintain or acquire eligibility for federal funding to implement hazard mitigation projects locally. Consensus built through the inclusion of cities and other agency stakeholders throughout Morrow County will improve the plan implementation process as well as the final PDMP, and will ultimately aid the process of building more resilient communities.

Morrow County Multi-Jurisdictional PDMP Update

A Pre-Disaster Mitigation Plan forms the foundation for a community's long-term strategy to reduce disaster losses and break the cycle of disaster damage, reconstruction, and repeated damage. It creates a framework for risk-based decision making to reduce damages to lives, property, and the economy from future disasters.

The Federal Emergency Management Agency (FEMA) approved the current Morrow County PDMP on December 15, 2006. In accordance with the five-year FEMA update and re-approval requirement, the plan recently lapsed on December 15, 2011.

In order for a jurisdiction within Morrow County to individually maintain eligibility for FEMA's Pre-Disaster Mitigation and Hazard Mitigation Grant Programs, participation from the jurisdiction must be documented within the county's plan. The code of federal regulations mandates the following:

- Multi-jurisdictional Participation - *§201.6(a) (3): Multi-jurisdictional plans (e.g., watershed plans) may be accepted, as appropriate, as long as each jurisdiction has participated in the process.*
- Multi-jurisdictional Risk Assessment - *§201.6(c) (2) (iii): For multi-jurisdictional plans, the risk assessment must assess each jurisdiction's risks where they vary from the risks facing the entire planning area.*
- Multi-jurisdictional Mitigation Strategy - *§201.6(c) (3) (iv): For multi-jurisdictional plans, there must be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan.*
- Multi-jurisdictional Plan Adoption - *§201.6(c) (5): For multi-jurisdictional plans, each jurisdiction requesting approval of the plan must document that it has been formally adopted.*

This project is being funded through FEMA's Pre-Disaster Mitigation Grant Program; Planning Project for Mid-Columbia Gorge County PDMP Updates (Grant Number: EMS-2011-PC-0002).

City of Irrigon Criteria for Involvement

In order to document involvement from jurisdictions within Morrow County and complete the plan update on schedule, it is suggested that the City of Irrigon complete the following over the next year:

Establish a Mitigation Plan Steering Committee

- Establish the City of Irrigon Pre-Disaster Mitigation Plan Steering Committee
- Identify and invite new participants and external partners (e.g. Red Cross, Hospitals, School Districts, etc.)

Develop a Public Involvement Strategy

- Establish strategies that encourage public involvement
- Outreach strategies may include public information workshops, city newsletters, and press releases

Collect Data

- Collect mitigation plan maintenance meeting agendas and minutes since 2006
- Collect documentation related to any hazard occurrences or emergency declarations in the City of Irrigon since 2006
- Identify and document plan implementation activities, including completed projects and other "success stories"
- Collect any local, state, or federal studies or reports completed since 2006 if available

Important Steps for the City of Irrigon

- Attend and participate in Morrow County's PDMP Steering Committee meetings
- Brief city administration on project
- Establish and convene a City of Irrigon PDMP Steering Committee at least once
- Notify public with a Public Service Announcement – we can help write it and contact local news outlets
- Identify potential stakeholder groups

Steering Committee Involvement

The Steering Committee will be tasked with ensuring that there is adequate stakeholder representation from the community. Morrow County is committed to moving the process along in as efficient a manner as possible and will look to combine tasks and limit the total number of steering committee meetings wherever possible.

Project Outcome

Our primary measure of success for this project will be the adoption of an updated Morrow County PDMP. Ultimately it will be the process cities go through in the planning effort and the eventual implementation of the plans, not the plans themselves, which will be the true indicators of success resulting from this project.

Should you have any questions or concerns, please do not hesitate to contact Planning Director Carla McLane at cmclane@co.morrow.or.us or Associate Planner Layne Wolfmueller at lwolfmueller@co.morrow.or.us or at the office at 541-922-4624.

RESOLUTION NO. 06-25

A RESOLUTION ADOPTING THE MORROW COUNTY
PRE-DISASTER MITIGATION PLAN

WHEREAS, The City of Irrigon 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 Morrow County appointed a Steering Committee to guide the development of the Plan which consisted of ten people representing various agencies and organization in Morrow County to include the local fire protection district, the American Red Cross, the Port of Morrow, the Morrow County School District, the City of Heppner, Morrow Soil and Water Conservation District, all having a stake in natural hazard mitigation; and

WHEREAS, the Steering Committee met five times carefully guiding the development of Morrow County Pre-disaster Mitigation Plan; and

WHEREAS, the Morrow County Planning Staff held an information pre-disaster mitigation interview with the City of Irrigon on July 24, 2006 and the Irrigon Chamber of Commerce Board of Directors on August 2, 2006. The interviews included information sharing and gathering concerning natural hazard issues and mitigation possibilities. This process garnered recommendations for activities that the City of Irrigon can engage in to reduce risk; and

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

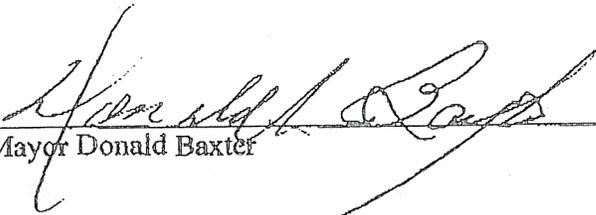
WHEREAS, the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X officials have reviewed the "Morrow County Pre-disaster Mitigation Plan" (dated September 12, 2006) and pre-approved it (dated, October 25, 2006) contingent upon this official Adoption by the City of Irrigon;

NOW THEREFORE BE IT RESOLVED, that the City of Irrigon adopts the "Morrow County Pre-disaster Mitigation Plan," which includes the Irrigon City Annex, as an official plan.

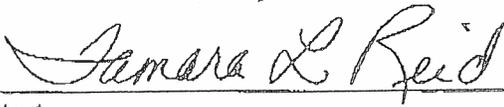
Section 1 Resolution Exhibits: The Morrow County Pre-Disaster Mitigation Plan, which includes five Chapter Sections, eight Natural Hazard Annexes, five City Annexes, and Appendices "A" through "J."

Section 2 Effective Date: To respect the work done by the Steering Committee, the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X, the City of Irrigon City Council deems there to be an emergency. The Resolution and its included exhibit, the Morrow County Pre-Disaster Mitigation Plan, is to be effective November 28, 2006.

NOW THEREFORE BE IT FURTHER RESOLVED by the City of Irrigon City Council adopts, this 28th day of November, 2006 the Morrow County Pre-Disaster Mitigation Plan.



Mayor Donald Baxter



Attest

City of Irrigon Stakeholder Interview Summaries

Interview with City Manager and Public Works Director – July 24, 2006

Staff interviewed Jerry Breazeale, City Manager and Keith White, Public Works Director. As staff introduced the five Community Asset Functions (Human Population, Economic Assets, Cultural & Historic Resources, Infrastructure & Critical Facilities, and Environmental Assets) Jerry and Keith discussed the features, assets or resources of each category, shared Irrigon's assets with Planning Staff and entered the information on a map with different colored markers indicating separate Asset Functions. The eight natural hazards analyzed in the Plan were discussed in context with the Community Asset Functions as well. The following are the important aspects of each category and how the natural hazards may affect them:

- Human Population
There is a fairly high percentage of Hispanics in Irrigon (27% - 2000 Census), This may affect communication especially during windstorm and winter storm events. The elderly and disabled population is also considered fairly significant.
- Economic Assets
During times of power outages or a threatened power outage, the local population may utilize the Irrigon grocery/gas station (Huwe's) for battery, water, ice, food, and fuel needs. There was consensus that this local market should be a critical economic asset for Irrigon. In addition to Huwe's, they listed other local restaurants and the bank.
- Cultural & Historic Resources
The assets listed are: the Heritage Trail, The Oregon Trail spur, Sand Island (location of an encampment of the Lewis and Clark Expedition, now inundated), and the local cemeteries.
- Infrastructure & Critical Facilities
The facilities listed are: two water wells and booster stations which supply the City with water, schools, Irrigon Medical Clinic, Irrigon Rural Fire Protection District facilities, sewer system and boosters, and City Hall.
- Environmental Assets
Irrigon has two parks, which include the park and marina on the Columbia River and the City Park on Main Street, which fronts State Highway 730.

Windstorm and winter storm have the most impact on the City. During these events the City loses trees and may have issues with local transportation blockages and tree damages to private and public property. There are no significant issues with flooding, earthquake, volcano, landslides wildfire, and drought. Two Action Items were submitted having to do with the need for backup generation for the water system and the sewage system.

Interview with the Irrigon Chamber of Commerce Board of Directors – August 2, 2006

Staff interviewed Laura Clark, John Sebastian, Patti Burre, Rhiannan Zahn, and Donna Eppenbach. As staff introduced the five Community Asset Functions (Human Population, Economic Assets, Cultural & Historic Resources, Infrastructure & Critical Facilities, and Environmental Assets), and the map and information already provided by

the City Manager and Public Works Director, the Board discussed the features, assets or resources of each category. The Board added the following information:

- **Human Population**
Due to CSEPP preparation for a chemical disaster, the community has evacuation transportation available in emergencies.

- **Economic Assets**
Irrigon is a bedroom community of the larger economic region and does not have many economic assets, but there are various home based businesses, the post office and the local fruit stands in addition to the assets mentioned above.

- **Cultural & Historic Resources**
The Watermelon Festival in July, the Paterson Ferry dock, the old train docking area, and the Fishing Derby in August are in addition to the assets listed above.

- **Infrastructure & Critical Facilities**
The Chamber felt that the churches should be listed as critical facilities due to probability that they would provide food to persons in need during times of emergency.

The Board submitted one Action Item for inclusion in the Plan. It is in response to drought and wildfire mitigation and involves inclusion and development of the vacant land west of the marina into the existing park and marina.

Action Item Proposal Form *Irrigon*

Proposed Action Item Identification: (Example MH #1 - for Multi-Hazard #1; or FH #3 - for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)
<i>MH - ST</i>		<i>Goals</i>
Proposed Action Title:		
Provide back up power for Sewage system lift stations in Irrigon		
Rationale for Proposed Action Item: (What critical issues will the action address?)		
There is no back-up at all. In the case power outage sewage system would be down and create a significant health and safety issue. There would be raw sewage on the ground in less than <u>four</u> hours.		
Ideas for Implementation:		
Obtain at least 8 back-up generators to power sewage system in case of a power outage		
Coordinating Organization:		<i>City of Irrigon</i>
Internal Partners:		External Partners:
		<i>State or Federal Resource Agency</i>
Timeline:		If available, estimated cost:
Short Term (0-2 years)	Long Term (2-4 or more years)	
<input checked="" type="checkbox"/>		
Form Submitted by:		<i>Terry Breazeale + Keith White via C.T.</i>

Action Item Proposal Form *Irrigon*

Proposed Action Item Identification: (Example MH #1 for Multi-Hazard #1; or FH #3 – for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)
<i>MH-51</i>		<i>Goal 5</i>
Proposed Action Title:		
Provide emergency back-up for the City water system in Irrigon		
Rationale for Proposed Action Item: (What critical issues will the action address?)		
The storage system can provide about 4 hours of stored water. After that, the city would not be able to provide water. See Risk assessment Summary for North Morrow County		
Ideas for Implementation:		
Provide emergency back up generators to run the system in an emergency.		
Coordinating Organization:		<i>City of Irrigon</i>
Internal Partners:		External Partners:
<i>City of</i>		<i>State or Federal Resource Agency</i>
Timeline:		If available, estimated cost:
Short Term (0-2 years)	Long Term (2-4 or more years)	
<input checked="" type="checkbox"/>		
Form Submitted by:		<i>Terry Brazeale, Keith White, via C.T.</i>

Action Item Proposal Form *Irrigon Chamber*

Proposed Action Item Identification: (Example MH #1 - for Multi-Hazard #1; or FH #3 - for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)
MH-LT		Goal 1
Proposed Action Title: lessen wildfire and drought impacts in Irrigon		
Rationale for Proposed Action Item: (What critical issues will the action address?)		
The undeveloped area west of The Marina in Irrigon can potentially exacerbate drought and wildfire risk at that location.		
Ideas for Implementation:		
This vacant land, owned by the U.S. Army Corp of Engineers, could be developed into a larger Marina area. The City could work with the Army Corp of Engineers to develop this property & lessen drought and wildfire risk.		
Coordinating Organization:		City of Irrigon
Internal Partners:		External Partners:
Irrigon		U.S. Army Corps of Engineers
Timeline:		If available, estimated cost:
Short Term (0-2 years)	Long Term (2-4 or more years)	
	X	
Form Submitted by:		Laura Clark, Irrigon Chamber of Commerce

Mitigation Action Progress Report Form

Progress Report Period	From Date	To Date 1-8-2014
Action/Project Title	Lessening Wildfire and Drought Impacts in Irrigon	
Responsible Agency	Irrigon Chamber & City of Irrigon	
Contact Name	Aaron Palmquist – City Manager	
Contact Phone/Email	541-922-3047 / manager@ci.irrigon.or.us	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input checked="" type="checkbox"/> Project delayed Explain <u>Problem with other agency processes</u>	

Summary of Project Progress for this Period

<p>1. What was accomplished for this project during this reporting period?</p> <p>Item remains open with on-going issues.</p>	
<p>2. What obstacles, problems, or delays did the project encounter?</p> <p>The US Army Corps of Engineers and Confederated Tribes management process limit forward movement at times.</p>	
<p>3. If uncompleted, is the project still relevant? Should the project be changed or revised?</p> <p>Still relevant and long work toward completion is in process.</p>	
<p>4. Other comments</p> <p>N/A</p>	

Mitigation Action Progress Report Form

Progress Report Period	From Date	To Date 1-8-2014
Action/Project Title	Water System power back-up (1 Gen Set)	
Responsible Agency	City of Irrigon	
Contact Name	Aaron Palmquist – City Manager	
Contact Phone/Email	541-922-3047 / manager@ci.irrigon.or.us	
Project Status	<input checked="" type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

<p>1. What was accomplished for this project during this reporting period?</p>	<p>New storage was installed to increase from four (4) hours to five (5) day reserve.</p>
<p>2. What obstacles, problems, or delays did the project encounter?</p>	<p>Expenditures that included bond/loans. Increased expenses to end-users.</p>
<p>3. If uncompleted, is the project still relevant? Should the project be changed or revised?</p>	<p>N/A</p>
<p>4. Other comments</p>	<p>N/A</p>

Mitigation Action Progress Report Form

Progress Report Period	From Date	To Date 1-8-2014
Action/Project Title	Sewage System Lift Stations power back-up (8 Gen Sets)	
Responsible Agency	City of Irrigon	
Contact Name	Aaron Palmquist – City Manager	
Contact Phone/Email	541-922-3047 / manager@ci.irrigon.or.us	
Project Status	<input checked="" type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

<p>1. What was accomplished for this project during this reporting period?</p>	<p>System currently has back-up power supplies. Action that was proposed has resolved outage issue(s), enabling systems to remain on-line.</p>
<p>2. What obstacles, problems, or delays did the project encounter?</p>	<p>None to report, other than funding that has been obtained and resulting in debt service.</p>
<p>3. If uncompleted, is the project still relevant? Should the project be changed or revised?</p>	<p>N/A</p>
<p>4. Other comments</p>	<p>N/A</p>

ACTION ITEM PROPOSAL FORM

Proposed Action Item Identification: (Example MH #1 – for Multi-Hazard #1; or FH #3 – Flood Hazard #3) MH-ST	Alignment with Plan Goals: (List Goals the action helps to achieve.) Goal #5
--	--

Proposed Action Title: Provide emergency back-up for wells. #1	Link this with a specific goal listed with the Plan Goal #5
--	---

Rationale for Proposed Action Item: (What critical issues will the action address?)

Describe WHY this action is important. If this location flooded or was damaged during a specific event, mention it in this section.

Loss of power creates inability to provide consistent clean and safe domestic water from ground source wells.

Ideas for Implementation

Statements about specific actions such as culvert work, bio swell areas, ditches/road widening or other actions that should be taken go here.

Securing a minimum 40 KW portable generator to run well systems (2) during outages.

Coordinating Organization:	City of Irrigon
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Internal Partners	External Partners
	County, State, and Federal resource agencies

Timeline:		If available, estimated cost:
<u>Short Term (0-2 years)</u>	<u>Long Term (2-4 or more years)</u>	\$40,000
	X	

Form Submitted By:	Aaron Palmquist and Keith White with local Pre-Disaster Team
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ACTION ITEM PROPOSAL FORM

Proposed Action Item Identification: (Example MH #1 – for Multi-Hazard #1; or FH #3 – Flood Hazard #3) MH-ST	Alignment with Plan Goals: (List Goals the action helps to achieve.) Goal #5
--	--

Proposed Action Title: Provide emergency/auxiliary back-up power for Lift Station. #2	Link this with a specific goal listed with the Plan Goal #5
---	---

Rationale for Proposed Action Item: (What critical issues will the action address?)

Describe WHY this action is important. If this location flooded or was damaged during a specific event, mention it in this section.

To maintain consistent flow of sewage to eliminate and/or reduce sewer back-up and potential overflows.

Ideas for Implementation

Statements about specific actions such as culvert work, bio swell areas, ditches/road widening or other actions that should be taken go here.

Secure two (2) permanent lift station generators and at least one (1) mobile generator for broad sewer emergencies less than 12 hours. Longer hours require more than two (2) portable generators – minimum 10 KW.

Coordinating Organization:	City of Irrigon
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Internal Partners	External Partners
	County, State, and Federal resource agencies

Timeline:		If available, estimated cost:
<u>Short Term (0-2 years)</u>	<u>Long Term (2-4 or more years)</u>	\$20,000
	X	

Form Submitted By:	Aaron Palmquist and Keith White with local Pre-Disaster Team
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ACTION ITEM PROPOSAL FORM

Proposed Action Item Identification: (Example MH #1 - for Multi-Hazard #1; or FH #3 - Flood Hazard #3)

MH-ST

Alignment with Plan Goals: (List Goals the action helps to achieve.)

Goal #1 & #5

Proposed Action Title:

Provide emergency back-up power for Community Warming Station. #3

Link this with a specific goal listed with the Plan

Goal #1 & #5

Rationale for Proposed Action Item: (What critical issues will the action address?)

Describe WHY this action is important. If this location flooded or was damaged during a specific event, mention it in this section.

Multiple emergencies necessitate the use of warming (holding) area for local residents, with a potential gathering area at Stokes Landing Senior Center, should a generator be acquired. Provides for sustained operations during such event(s)/emergency.

Ideas for Implementation

Statements about specific actions such as culvert work, bio swell areas, ditches/road widening or other actions that should be taken go here.

Secure a back-up generator (40 KW or larger) to run and maintain systems during such emergency..

Coordinating Organization:

City of Irrigon

Internal Partners

External Partners

Senior Center, County, State, and Federal resource agencies

Timeline:

If available, estimated cost:

Short Term (0-2 years)

Long Term (2-4 or more years)

\$40,000

X

Form Submitted By:

Aaron Palmquist and Keith White with local Pre-Disaster Team

ACTION ITEM PROPOSAL FORM

Proposed Action Item Identification: (Example MH #1 – for Multi-Hazard #1; or FH #3 – Flood Hazard #3) MH-ST	Alignment with Plan Goals: (List Goals the action helps to achieve.) Goal #2 & #3
--	---

Proposed Action Title: Provide emergency Information Dissemination Broadcasting. #4	Link this with a specific goal listed with the Plan Goal #2 & #3
---	--

Rationale for Proposed Action Item: (What critical issues will the action address?)

Describe WHY this action is important. If this location flooded or was damaged during a specific event, mention it in this section.

Loss of power and ineffective communication during one or more emergencies. The city would not be able to safely and effectively communicate with the public to reduce risk(s) in such events.

Ideas for Implementation

Statements about specific actions such as culvert work, bio swell areas, ditches/road widening or other actions that should be taken go here.

Installation of an electronic public reader board along NE Division St., viewable on Hi Way 730 that is linked to city hall power supply (system generator). On-going service announcements and emergency broadcasting during emergencies due to loss of power. City Hall would function as the EOC (Emergency Operations Center) for Irrigon community.

Coordinating Organization:	City of Irrigon
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Internal Partners	External Partners
	Port of Morrow, Morrow County, State, and Federal resource agencies

Timeline:		If available, estimated cost:
Short Term (0-2 years)	Long Term (2-4 or more years)	\$35,000
X		

Form Submitted By:	Aaron Palmquist and Keith White with local Pre-Disaster Team
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AGENDA
Irrigon City Council Meeting
February 18, 2014 - 6:00 PM
Irrigon City Hall - 500 NE Main Avenue

1. Call to Order/Pledge/Roll Call
2. Mayor's Comments
3. * Consent Agenda (*The Consent Agenda allows the Council to approve all items together without discussion or individual motions. Councilors can request an item be removed for later in the meeting and discussion*)
 - a. Approval of Minutes – January 21, 2014
 - b. Staff Reports
 - i. Public Works
 - ii. Finance Officer
 - iii. City Manager
 - c. Accounts Payable
 - d. Morrow County Sheriff Report
 - e. Correspondence
4. Public Comment – Maximum 5 minutes/person
This is the time provided for individuals wishing to address the Council, at their discretion, regarding issues that are not already on the agenda. Please sign-up on the clipboard.
5. PDMP – Morrow County Planning Presentation (Carla McClain)
6. * RFP Awarding for Assumption of Right of Way Cabling (Staff)
7. * Resolution 14-02 "Agreement to Transfer Cable Assets" (Staff)
8. Ordinance No. 224-14 "Century Link Franchise" (Staff)
9. * Budget Committee Appointments (Mayor)
10. * Third Party CPA Consultant Agreement (Christine)
11. Spring Clean-up "Information Only" (Staff)
12. Construction Update "Information Only" (Staff)
13. Items for Future Council Meetings

Adjournment

Next Regular Meeting Date – March 18, 2014

* Denotes a motion and vote required.

If you would like to attend and need assistance, please phone Irrigon City Hall at 1.541.922.3047 or TTY relay 1.800.735.2900
Records Requests: The public may request documents for review, as legally applicable. A written request shall be submitted with a response in 5 business days of the time and cost for such public document request. City will proceed upon written notice to proceed or disregard the request.



Minutes
Irrigon City Council Meeting
February 18, 2014 - 6:00 PM
Irrigon City Hall - 500 NE Main Avenue

1. Call to Order, Roll Call and Pledge of Allegiance

Mayor Sam Heath called the meeting to order at 6:00 p.m.

Council members present: Daren Strong, Christine Sorenson, Sam Heath, Joe Theisen, Margaret Anderson and Michelle Hagen. Ken Matlack had excused absence.

Staff present: City Manager Aaron Palmquist, and City Clerk Penny Moore

Audience: Andrew Hermanns, Cecil Rock, Carla McLane, Lori Timmons, Layne Wolfmueller, Janet Cooley, Phyllis Danielson, Paul Danielson, and Barb Huwe.

Mayor Heath asked all to rise for the Pledge of Allegiance.

2. Mayor's Comments

Mayor Heath noted that she had attended many meetings this past month; the IMAC breakfast held the last Saturday of the month, it was great and you cannot beat the price, a Bike/PED open house on January 30, attendance was low, plan on the presentation from Kittleson & Associates for adoption by the end of the fiscal year; senior lunches served every Monday at noon at Stokes Landing Senior Center; a FOIL meeting, which are planning for their baseball tournament; and the Irrigon Chamber of Commerce luncheons the second Wednesday of each month.

Mayor Heath thanked the City of Irrigon Public Works crew for the good job clearing the streets after the snowfall.

3. * Consent Agenda

Mayor Heath asked council for a motion to approve the Consent Agenda.

It was moved by Councilor Anderson and seconded by Councilor Sorenson to approve and accept the Consent Agenda with all items as presented.

- a. Approval of Minutes – January 21, 2014
- b. Staff Reports
 - i. Public Works
 - ii. Finance Officer
 - iii. City Manager
- c. Accounts Payable
- d. Morrow County Sheriff Report

e. Correspondence

The motion passed unanimously.

4. Public Comment – Maximum 5 minutes/person

Phyllis Danielson gave an update for the Irrigon Chamber of Commerce. A Leadership Council team has formed with twelve members. Scheduled events; a citizen recognition banquet is April 25, 2014; a Skateboard Tournament is in the works; Casino Night in November. A newsletter is being emailed to members. The chambers monthly luncheons are the second Wednesday of the month, with a guest speaker and a featured business. Membership is up to 53, contact the chamber (irrigonchamber@irrigonchamber.com) to join.

5. Pre-Disaster Mitigation Plan – Morrow County Planning Presentation

Morrow County Planning Director Carla McLane addressed the Natural Hazard Mitigation Plan. In 2006 the City of Irrigon adopted a resolution for a Pre-Disaster Mitigation Plan (PDMP) for natural hazards within our community. FEMA approved the current Morrow County PDMP December 15, 2006. This meeting is a required update. The criterion for involvement for the City of Irrigon is to have this plan in place before establishing the city's emergency plan.

Action items from the 2006 plan were to provide backup power for sewage system lift stations, provide emergency backup for the City water system, and lessen wildfire and drought impacts. Discussed were hazard events in Irrigon in the last 7 years and asked what was missing. The community review was to review providing services to children, elderly, low income and businesses. There will be a wrap up in March.

Citizen Paul Danielson noted that there was a natural gas leak by AC Houghton, where would they be evacuated to? There's a plan for the City; where to evacuate is a disaster event. Citizen Janet Cooley stated that when the power went out earlier this year, there was nowhere to go to get warm. Carla McLane specified to ID (Identify) where the weaknesses are.

6. * RFP Awarding for Assumption of Right of Way Cabling

City Manager Palmquist stated that Eastern Oregon Telecom (EOT) was the only company to respond. This is part of the process of moving forward in cleaning up the abandoned rights of ways as well as beginning the process to enter into a future franchise.

It was moved by Councilor Theisen and seconded by Councilor Hagen to accept Eastern Oregon Telecom (EOT) as the vendor of choice for the cabling within Irrigon's Public Right of Way that was opened through a sealed proposal process on January 27, 2014. The motion passed unanimously.

7. * Resolution 14-02 "Agreement to Transfer Cable Assets"

Mayor Heath asked Council if there was a motion for Resolution 14-02. It was moved by Councilor Hagen and seconded by Councilor Strong to approve Resolution 14-02 in entering into an agreement with EOT to transfer cable assets in the right of way and begin the process of a larger franchise with EOT for telecommunication services. The motion passed unanimously. Manager Palmquist said that the future franchise will be another way of offering a service to the members of our community.

8. Ordinance No. 224-14 "Century Link Franchise"

Mayor Heath stated that Ordinance No. 224-14 is for information only. Manager Palmquist read page 4 of the ordinance stating that when required by City ordinance franchisee shall install new telecommunications facilities underground in new development area unless the city specifically permits attachments to utility poles or other aboveground facilities, provided, however, no entity with existing attachments to utility poles shall be required to install new or existing facilities underground.

9. * Budget Committee Appointments

Mayor Heath stated that there are 6 members of the community to appoint to the 2014-2015 Budget Committee. Those members are: Martin Brown; Andrew Hermanns; Merv Hussey; Janet Cooley; Alan Carnahan; and Luke Maynard, with one vacancy.

It was moved by Councilor Theisen and seconded by Councilor Anderson to authorize the appointment of the six (6) individuals to the Irrigon Budget Committee as presented. The motion passed unanimously.

10. * Third Party CPA Consultant Agreement

Mayor Heath asked Councilor Sorenson to present her report. Councilor Sorenson stated that this report regards the financial picture and working with an independent CPA that is used to working with government entities. She recommends Barnett & Moro's CPA Richard Stoddard who is willing to assist in providing a review of the City's financials and make recommendations.

It was moved by Councilor Anderson and seconded by Councilor Hagen to approve the third party CPA consultant agreement with Barnett & Moro as presented. Motion passed unanimously.

11. Spring Clean-up "Information Only"

Manager Palmquist mentioned that Sanitary Disposal will have a spring clean-up the week of April 1 through April 7, 2014. Manager Palmquist will be putting together a letter that will provide options to maintain trash removal throughout the year. The City code specifies trash/garbage is to be removed once every seven days.

12. Construction Update "Information Only"

Manager Palmquist stated that in building relationships, the Port of Morrow (POM) will construct the sidewalks on the east side of Division Street in April 2014. A separate project is a large shared parking lot that will be constructed after the sidewalks are completed. There will be a reduction of shrubs and trees from the first draft, however, the lot will still look nice.

13. Items for Future Council Meetings

There was a brief discussion on the corner of Columbia and Third Street stop sign and First Street trees that need to be removed.

With no further business the meeting was adjourned.

Adjournment was a 7:27 p.m.

Minutes were prepared by: Penny Moore

SIGNED:

Sam Heath
Sam Heath, Mayor

ATTEST:

Aaron Palmquist
Aaron Palmquist, City Manager

February 18, 2014

Page 4 of 4

TOWN OF LEXINGTON

A Resolution Adopting the Morrow)
County Natural Hazard Mitigation Plan) RESOLUTION NO. 16-6

WHEREAS, The Town of Lexington 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 Morrow County Court appointed a Steering Committee to guide the update of the Plan, which was originally adopted by the County in 2006, which consisted of 12 people representing various agencies and organizations in Morrow County to include the local fire protection districts, the Morrow County Emergency Manager, Morrow County Public Works, Local Emergency Planning Committee, the five communities of Morrow County, and Morrow Soil and Water Conservation District, all having a stake in natural hazard mitigation; and

WHEREAS, the Steering Committee met the following five times:

- February 23, 2012
- November 19, 2013
- March 4, 2014
- October 20, 2015
- April 5, 2016 (NHMP Cities Meeting)

WHEREAS, The Town of Lexington participated in the FEMA review process to update this Natural Hazard Mitigation Plan; and

WHEREAS, The Town of Lexington held a public meeting on January 14, 2014, to consider the Natural Hazard Mitigation Plan and the Ione City Annex; and

WHEREAS, after the first FEMA review process Morrow County made changes as required to the draft plan; and

WHEREAS, after the second FEMA review process, FEMA approved the draft plan, and the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X officials have reviewed the "Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan" and pre-approved this update contingent upon this official Adoption by Resolution of the participating governments and entities;

NOW THEREFORE BE IT RESOLVED THAT THE TOWN OF LEXINGTON ADOPTS BY RESOLUTION THE “MORROW COUNTY OREGON MULTI-JURISDICTIONAL NATURAL HAZARD MITIGATION PLAN” AS AN OFFICIAL PLAN; and

BE IT FURTHER RESOLVED, MORROW COUNTY WILL SUBMIT THE ADOPTION RESOLUTIONS TO THE OREGON OFFICE OF EMERGENCY MANAGEMENT AND FEDERAL EMERGENCY MANAGEMENT AGENCY, REGION X OFFICIALS TO ENABLE THE PLAN’S FINAL APPROVAL.

Section 1 Title of Resolution:

This resolution shall be known, and may be cited as “The 2016 Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan.”

Section 2 Attached Document:

The Morrow County Natural Hazard Mitigation Plan, which includes five Chapter Sections of the Plan, eight Natural Hazard Annexes, five City Annexes, and Appendices “A” through “G” arranged as follows and attached:

Chapters of The Plan:

- Section 1 - Introduction
- Section 2 - Community Profile
- Section 3 - Natural Hazard Risks
- Section 4 - Mission, Goals and Action Items
- Section 5 - Plan Implementation and Maintenance

Hazard Specific Annexes:

- Drought
- Earthquake
- Flood
- Landslide
- Volcano
- Wildfire
- Windstorm
- Winter Storm

City Annexes:

- Boardman
- Heppner
- Ione
- Irrigon
- Lexington

Resources Appendices:

- A - Resource Directory
- B - Planning and Public Process
- C - Regional Natural Hazard Public Opinion Survey
- D - Existing Plans, Policies, and Programs
- E - List of Acronyms
- F - Action Items
- G - Maps

Section 3 Effective Date:

To respect the work done by the Steering Committee, the Oregon Office of Emergency Management and Federal Emergency Management Agency, Region X, The Town of Lexington deems there to be an emergency. This Resolution and its attached document, the Morrow County Oregon Multi-Jurisdictional Natural Hazard Mitigation Plan, is to be effective on January 1, 2017, which is after adoption by Morrow County and all five communities.

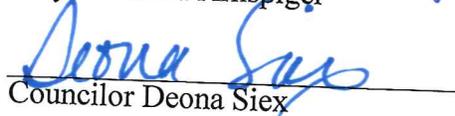
ADOPTED BY THE TOWN OF LEXINGTON TOWN COUNCIL THIS 13th DAY OF DECEMBER, 2016.



Mayor Arletta Arnsperger



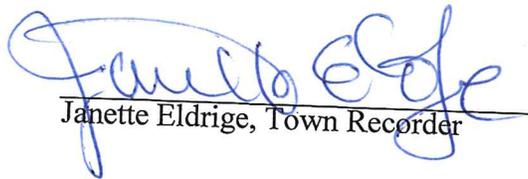
Councilor Bill Beard



Councilor Deona Siex



Councilor Sheila Miller



Janette Eldrige, Town Recorder

LEXINGTON, OREGON

Annex to the Morrow County Multi-jurisdictional Natural Hazard Mitigation Plan

December 2016



Town of Lexington

NATURAL HAZARD MITIGATION PLAN

Updated 1/15/14

INTRODUCTION:

Morrow County and the cities and town that make up its living communities has decided to work together to update what was called "The Pre Mitigation Disaster Plan" and is now called a "Natural Hazard Mitigation Plan. Many of our natural hazards are the same but each entity has its own distinct differences as well. Working together helps all of us be able to know the needs of the other and hopefully, use our resources more wisely.

Since 2006, Lexington has been able to accomplish some of its action items due to the persistence of community members and financial help from FEMA, Morrow County Tippage Fees, (which are no longer available), Wild Horse Foundation, and a bond voted in by the people and funded by the local Bank of Eastern Oregon. The action items are implemented with the help of the Town's Developmental Code, Transportation Plan, and Comprehensive Plan. Semi-annual maintenance meetings will be held locally and with the Morrow County Planning Committee to help us keep on track.

The local steering committee was made up of council members: Jean Brazell, Mayor; and Councilors: Beverly Steagall, Will Lemmon, and Billee Owen and Fire Chief Charlie Sumner. Community members were summoned to be a part of the committee through the monthly Lexington Newsletter of December 2013 and January 2014 and a notice posted at the Post Office and in the window at Town Hall. Those attending the January 14th meeting were John Edwards, Dorothy Edwards, and Shirley McCarl. The January 28th meeting added on council member, Annette Sherman and community members: Lori McCabe, Edith Papineau and Earl Papineau. Also attending the January 14th meeting were Morrow County Planning Department Members: Lori Timmons, Layne Wolfmueller, and Carla McLane, who introduced the purpose of the plan update and explained that the Town was able to get funds from FEMA for its new town hall and fire hall because of having the plan in place. They also helped with the process of what needed to be done. Thus, the January 28th meeting was set to discuss the needed action items. Also a Household Survey concerning Natural Hazards was sent to every home in town and 40 out of 120 sent were returned, giving helpful information for the action items.

COMMUNITY PROFILE:

Geographical Location: The Town of Lexington is located in the Willow Creek Valley in southern Morrow County between Heppner (nine miles to the southeast) and Ione (eight miles to the northwest.) The area is primarily agricultural and lies approximately forty miles south of the commercial/ industrial developments situated near the Columbia River communities of Boardman and Irrigon approximately 25 miles to the east. While the surrounding topographies is of the rolling-hills/ steppe-type environment, the Town lies at the convergence of Willow Creek and Blackhorse Canyon, two significant drainage areas chronically susceptible to flash-flooding.

Population: Lexington maintains a relatively stable population of between 200-265 residents (approximately 100 households.) Significant portions, over 50%, of the residents are retired, although most remain reasonably active and ferociously self-sufficient. School-age children attend classes in Heppner or Ione. The majority of working adults are employed out-of-town. An estimated 98% of the population is over the age of 8, and is literate. In additions, the skills and experience commanded by the townsfolk, both retired and actively employed, include expertise in the areas of construction (mainly carpentry/ concrete), welding, machinist, teaching, heavy equipment operation, veterinary medicine, mechanics, emergency medical care, general health care, animal husbandry, military service, firefighter, bookkeeping/ accounting, farming, secretarial, small aircraft pilot, power generation and irrigation/ water system installation and maintenance.

Economic Base: The traditional; economic base for the south Morrow County area, including Lexington, has been dry-land farming and timber. With initiation of the Conservation Reserve Program (CRP) in the 1980's and the decline in the timber industry throughout the 1980's and 1990's, the availability of living-wage jobs dropped off sharply. However, the area still supports a healthy agricultural community, and the overall economic base is bolstered to a considerable extent by jobs available in government, schools and the small hospital located in Heppner. In addition, many residents forced to seek employment elsewhere choose to commute 40 to 60 miles to jobs in the Hermiston/ Boardman or Pendleton area rather than move their households.

Morrow County Grain Growers is the largest employer in Lexington, with approximately 23 employees. In addition to its office headquarters and main store, MCGG operates two grain elevators on the south side of town – one with a 390,000 bushel capacity and the other with a 150,000 bushel capacity.

Hattenhauer Distributing which owns and operates the local gas station/mini-mart (where the Post Office is also located) is the second largest employer with about 11 employees. Owner-operated shops and businesses include a restaurant/lounge, a towing service, an auto body/ paint shop, a veterinary clinic, a welding shop, an agricultural spraying operation and loggers.

Transportation Resources: Currently, Lexington's transportation needs are served almost exclusively by roadways. The primary north-south conduit is State Highway 207 running from Lexington north to intersect with I-84 near Hermiston. State Highway 74 passes through Heppner and proceeds down the Willow Creek Valley to the Columbia River, connecting Heppner, Lexington and Ione. Bombing Range Road intersects Highway 207 ten miles north of Lexington and provides the most direct route from south Morrow County to the communities of Boardman and Irrigon, as well as the Port of Morrow facilities located on the Columbia River.

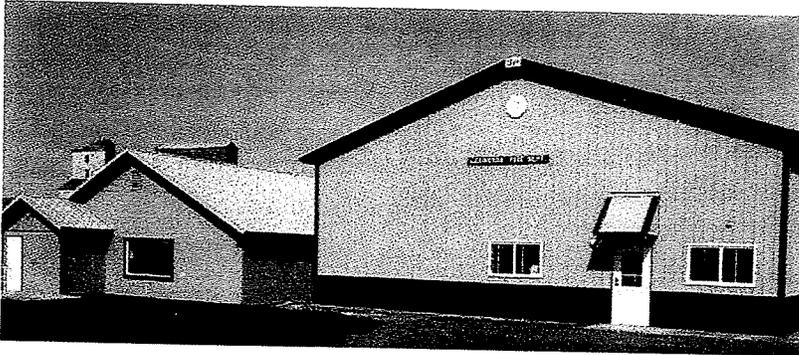
Lexington is also bordered on the north by the Lexington Airport. Although an uncontrolled field, airport facilities are adequate for use by small jets and would be available in emergency situations for movement of supplies and personnel, including medical transport. Currently, the airport is used primarily by one agricultural spraying operator, a few private recreational pilots, three guided-hunt businesses and the Morrow County Grain Growers.

Public Transportation: There is no public transportation available in Lexington or in south Morrow County other than the special bus service provided for senior citizens. This service regularly transports seniors to the Hermiston/Pendleton areas for shopping, entertainment, health care and social purposes.

Transportation by Rail: None

Waterway Shipping: None

Government Structure and Resources: Lexington is governed by a Town Council comprised of four Council Members and a Mayor. All government officers are volunteers and unpaid, including the Chief of Lexington Volunteer Fire Department. In 2012 Town Hall and the Fire Department moved from Main Street out of the flood plain, to 425 F Street. A remodel was done for town hall and a new fire station was built by a bond voted on by community members, with FEMA moneys and a Wild Horse grant.



Lexington employs two persons: a Clerk/Recorder and a Maintenance Technician. These two persons are responsible for all the daily activities of the town and are the only persons likely to be on-site at the commencement of any emergency.

The town has access to Internet service but since the Fire Dept. / Town Hall boasts only one telephone line, internet activity, telephone calls, and FAX capability are mutually exclusive. Emergency communication is also available via radio with County emergency personnel and the Ione and Heppner Rural Fire Protection Districts.

Lexington receives approximately \$46,000 per year in property tax revenue. The main source of revenue for the support of town operations is from the sale of water, which generates approximately \$49,000 along with State revenues from cigarettes, liquor, and road tax. Other funding resources include franchise payments from the electric and telephone companies and grants applied for. Altogether, Lexington receives approximately \$95,000 per year from all sources and spends about the same. The lion's share of expenditures are attributable to maintenance of the water system, roads, and personnel costs.

The water system currently draws water from one source- a well located about ¼ mile south of the town limits at the edge of the town Cemetery. The elevation at that site allows water to be provided by gravity flow to all but the hillside properties on the north side of Willow

Creek. A booster pump is necessary to supply water to the resident near the top of the hill. The water from this well is of excellent quality and does not require daily chlorination.

In 2008, Lexington was to have a backup well drilled in order to meet 1.4 CFS requested in a total water right for well #3 at .33CFS and new well #4 at 1CFS, but well #4 never materialized and since well #3 was yielding the 1.4 CFS, Mayor Val Doherty requested that well #3 be allocated the whole CFS request and it was granted. However, a concern exists from citizens that a backup well and reservoir still needs to be an action item.

Lexington has no public sewer system. This issue was not brought up in the household survey.

Emergency Responses: Although Lexington is very proud of its fire department – the town’s sole formal emergency service- the truly invaluable assets available to the town are its people. One recent example was demonstrated on August 6, 2006 when the well pump simply stopped pumping. Initially we were advised that the town could be with water for 3-7 days. Within two hours. Individual written notices had been printed and hand-delivered (by Council Members and neighbors who were willing to be pressed into service) to every business and residence in town; supplemental telephonic and word-of-mouth notice effectively activated the small-town grapevine and achieve 100% public awareness as well as information exchange. SOS calls were also placed to the City Manager in Heppner, and to the local water master and representatives of the Oregon Water Resources Department.

Within four hours, we had received offers of assistance from Heppner Rural Fire Protections District for emergency fire suppression, and from the City of Heppner for what they had that we might need. The local spray operator volunteered the use of water from his private 10,000 gallon tank for fire suppression; water was also offered from two owners of private wells. Another volunteer offered the use of his water tank truck to deliver water to livestock should that become necessary. The Water Master and Water Resources personnel were on-site before the end of the afternoon and were instrumental in assisting the town in obtaining an emergency water permit for use of the old well for emergency non-potable purposes. The Cemetery District volunteered potable water from its well and consented to a connection between its well and the town’s reservoir.

Meanwhile the professionals were pulling the pump, and the townsfolk- simply stopped using water. When the crisis was discovered the town’s 300,000 gallon reservoir was approximately half full. Thirty-six hours later, when the pump (with a new motor) was re-installed and the town’s well was functioning on its own again, the reservoir was about ¾ full – due to the assist from the Cemetery District and the voluntary halt of water use by the people.

Nobody panicked. The town received a few (very appropriate) calls advising us of potential problems for special-needs citizens or circumstances, and they were handily addressed by simply providing information or arranging for volunteer stand-by service.

To gain some perspective about the magnitude of the response by the townsfolk it is necessary to note that August is the highest water-use month of the year for Lexington. During

the remainder of the month we used an average of 183,410 gallons per day for a total of 4,952,070 gallons of use for the month which is typical.

When the well was operating, written notices were once again printed and delivered to every residence and business in town. The procedure took about two hours, but an hour was required to run the color-copies on the town's only copier; we won't use color in our notices again.

Critical Infrastructure: In addition to the town's water system, Fire department and town hall, the town recognizes the vital importance of its three bridges. One is located on Highway 74 and crosses the Blackhorse Canyon drainage ditch. The second also bridges Blackhorse on Arcade Street one block farther south from the State Highway. The third crosses Willow Creek on B Street, which then connects with Cemetery Hill Road. The route across the B Street Bridge is the sole means of access to the Town's water well. The other two bridges provide the only means of traversing Blackhorse Canyon in order to reach the nearest emergency medical facilities at Pioneer Memorial Hospital in Heppner.

Approximately one-half of the towns' folk live on the west side of Blackhorse. If unable to reach Heppner the nearest alternative medical facilities are in Hermiston, about 45 miles north.

The towns' water mains also cross Willow Creek (in two places) and Blackhorse (in two places.) The mains are buried rather than supported on bridges. One more important crossing should be made at the Arcade St. Bridge in order to loop the system for better fire flow and less water contamination from dead end pipes.

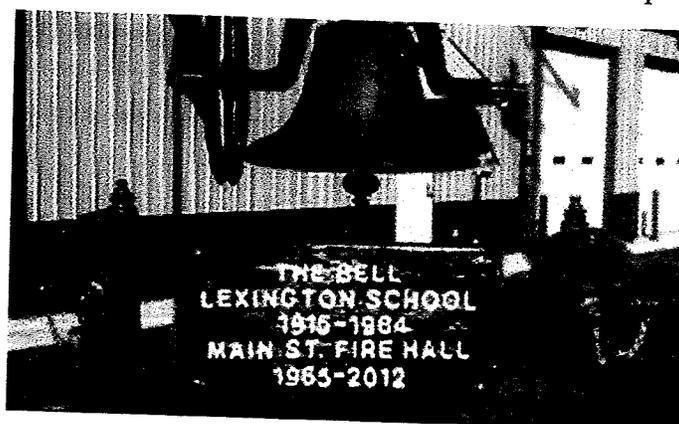
Cultural and Historical Interests: Many of Lexington's most valued "historical treasures" are living and breathing among us – namely, the grandchildren and great-grandchildren of original settlers who can recount three or four generation's worth of local legend and anecdote. In addition, three structures provide a concrete link with times-gone-by: the Lexington Community Church, the Holly Rebekah Lodge and the worn antique that once housed the Lexington Telephone Exchange.

Holly Rebekah Lodge: Initially constructed and operated as the "Leach Mercantile Store", the building was given to the Lexington Odd Fellows and Rebekah's by Mrs. Leach when the store closed for business. Since that time it has provided facilities for countless reunion, bridal showers, and club meetings, and for a time housed a popular dance hall.

The Lexington Community Church is probably best known for having been swept off its foundations during the Heppner Flood of 1903 (which, after demolishing Heppner, roared on to wreak havoc in Lexington and Ione.) Originally established in 1899 as the Methodist Episcopal Church, it gallantly rode the flood-tide down the street and crashed into the Congregational Church- the only other church in town. Retrieved, replaced and restored, it continues to serve the Lexington community today at its original site.

The Telephone Exchange Building is Lexington's lost child. Separated from its building site many years ago, it was donated to the town and it waits, foundationless, on the corner of a neighbor's property. While the town puzzles over what to do with it, it is deteriorating even though it is built of straight-grain red fir studs and rafters and its (now virtually unattainable) shiplap siding.

Lexington has also preserved a grist stone salvaged from its original flour mill. The stone is mounted on a concrete foundation, emphasizing the community's wheat-and-barley economic tradition. Other items of historical interest include the school bell which once called the Lexington Jackrabbits' to classes, and a mammoth tusk discovered near Blackhorse Canyon on the northeastern edge of town. The three story school, built in 1915 of brick and mortar, closed its doors to students in 1963 and to school offices in 2013. The brick and mortar construction is deteriorating and costly to repair, as well as, dangerous should an earthquake event happen.



NATURAL HAZARDS

Of the eight natural hazards affecting Region 5 and identified in the Morrow County Pre-Disaster Plan – flood, wildfire, winter storm, wind storm, drought, landslide, volcanic event and earthquake – Lexington is most likely to be impacted by the first five. The household survey ranked them #1-winter storm, #2 wind storm, #3 flood, #4 wildfire, and #5 drought. One survey mentioned earthquake. Although the potential for loss from a volcanic event would probably be ash from an eruption elsewhere and the direction of the wind during the event, or earthquakes could be dramatic, the likelihood of occurrence is considered remote. The topographical features in and near the town do not present factors which suggest any significant threat of loss due to landslide and no history of landslide activity is known.

DROUGHT

The pattern of drought cycle throughout the Columbia Basin is generally discussed in the Morrow County Plan, which focuses primarily on combinations with wind and fire hazards to appreciate its direct impacts. In drought cycles, the threat from wildfire increases significantly

while the availability of water for fire suppression diminishes, as does the effectiveness of Willow Creek as a firebreak. As Lexington is dependent upon its one operating well, a drought period which extends for more than 18 months raises concerns regarding the sustainability of the critical aquifer. So far the aquifer has held during the dry months with complete recovery of static level by the end of February, but again the people use conservation practices which help during the hot dry months. Before 2004, the Town had to use water restrictions during the summer, but that year the bore of the well was straightened to allow the pump to be lowered in the well, which has alleviated most of the “water shortage” problems.

WILDFIRE

Wind is a virtually constant presence in Lexington, blowing primarily out of the south and west. The area lying south and west of town is agricultural and either in crop (grain or alfalfa) or has been committed to CRP and planted grass. The edges of fields and roadways, as well as un-cropped “scab” lands and untilled draws produce multitude of Russian Thistles – tumbleweeds – which when dry are both highly flammable and extremely mobile. The household survey had many mention their concern about tumbleweeds, as they blow in from the outlying area and line fence lines of homes and fill ditches. While highways and the runways at the Lexington Airport provide some fire break protection on the north and west sides of the town, Lexington is exposed to threat from wildfire from the south and west as well.

In a thirty-mile-per-hour wind, which is not unusual for Lexington, a wildfire racing through ripe wheat together with the scattering of the fire front due to burning and blowing thistles is a frightening prospect. The most common causes of wildfire are lightning strikes and sparks cast from motor vehicles operating along roadways or in fields during harvest.

Over the past 30 years, the locals have been aware of the fire danger and have burned canyons filled with tumbleweeds in early spring, as well as adhered to a “no open burning” policy during the summer months. No big event has occurred and crops closer to Town have changed to alfalfa, instead of the dry wheat fields.

The Town does have a small volunteer fire department that is ready when called and has a nice new facility due to the action item in the 2006 plan and a FEMA grant.

FLOOD

As mention previously, Lexington lies at the convergence of Willow Creek and Blackhorse Canyon. Once prone to routine flooding from both drainages, changes in farming practices stream-side land management and the construction of the Willow Creek Dam above Heppner have mitigated the effects of flash flooding through the lower elevations of the town. Nevertheless, two climatic patterns continue to pose a significant risk of loss due to flash flood events. The first involves cloudburst, or “water spout” incidents accompanying thunder storms which routinely travel from the southwest to the northeast and cross Willow Creek and Blackhorse drainages between Heppner and Lexington. One of those cloud bursts happened over

Heppner in 2012, flooding the fair grounds. Blackhorse had water running down the paved road at a fast pace but because of the wide valley of grass, very little water made it through or to Lexington's Blackhorse Ditch. The second involves the same wind pattern – southwest to northeast- which brings a warm Chinook during winter months and results in rapidly melting of an existing blanket of snow.

Keeping Blackhorse ditch cleaned of matrimony vine, which can cause clogging of debris that comes down with the water during flooding and while keeping the grasses on the banks to lessen soil erosion has been a priority. A Flood Damage Prevention Ordinance was approved in 2007 which recognizes the Towns need to inform persons of the special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for the Town of Lexington" dated 12/18/07, with accompanying Flood Insurance Maps. Also the Town's Development Code, Article 16's purpose is to promote the public health, safety, and general welfare of its people and minimizes public and private losses due to flood conditions in specific areas by imposing regulations to minimize losses during flooding. The Town, early on, has participated in the NFIP—National Flood Insurance Program.

Flooding was actually #3 in concerns for Natural Hazards because over the past 30 years, no major flooding has occurred due to practices that help avoid major runoff and flooding in the Willow Creek Valley.

WIND STORM

Wind is constant presence in Lexington – so much so that it has to be blowing hard enough to rattle the house before it is deemed worth of comment. Wind undoubtedly causes the greatest number of loss incidents, although most are relatively small in terms of dollar-amount damages. Typical damage includes downed tree limbs (and trees), roofing shingles blown off, tarps and other covering blown away and various dings, dents and scrapes caused from flying debris. On the most recent survey in January of 2014, wind storm ranked #2 in citizen concerns.

Each storm brings hordes of tumbleweeds which catch and accumulate in fences, against building and vehicles, and in ditches and valleys, significantly increasing the potential for fire hazards.

While most losses cause by windstorm are frequent but minor, Lexington has been visited by tornado (as described in "Windstorm" Annex to the Morrow County Multi-Jurisdiction PDM Plan in an excerpt copied from The Oregon Weather Book.) The single incident of greatest loss was the destruction of a row of airplane hangars at the Lexington Airport when a rare howler out of the north simply lifted the post-and-metal-siding structure off its foundations and blew it over the brim of the hill towards town. There was no injury to persons involved and only minor damage to property – other than to the hangars themselves, which were demolished.

In the 2014 household survey, windstorm was the #2 concern of the people, declaring damage from limbs on old trees, loss of roofing, tumbleweed accumulations, and sometimes blowing dirt from fields as the dangers.

WINTER STORM

Winter is capricious in Lexington, sometimes passing with nothing but cold rain and a few days of light snow- and in other years (perhaps the very next one) bringing four-foot snow drifts laid over an inch or two of ice with the wind-chill factor driving temperatures down to 20 or 30 degrees below zero. Typically, most damage results from frozen water pipes and motor vehicle accidents. This year one home's water froze twice. Both times, they thought the Town had turned off their water!

Three factors contribute to the potential for serious injury or loss during winter storm conditions. The first is Lexington's geographic isolation, which curtails the potential for, and access to, outside aid – particularly medical assistance. The second factor is Lexington's undeniably large percentage of retirement-age citizens – who are more likely to be overtaxed by the need to clear walks and driveways or bring firewood during spells of bitter cold weather. Thirdly, water running from Clay St. down F St. and flowing over Highway 74, instead of into the culverts, and freezing solid, causing a very icy patch on the main highway is of concern. The new deicer used on the highways has helped the situation some for ice, but not the drainage of water.

Lexington has no snow-removal equipment and depends on locals who have blades on their tractors and the Town's backhoe to clear streets and driveways, especially street entrances onto Highway 74.

Most homes in Lexington have either a woodstove or a fireplace which is relied upon for heat during the winter months, increasing the potential risk of fire at a time when inclement weather inhibits response.

Finally, a winter storm poses the greatest threat for loss of electrical service for extended periods due to the accumulation of ice on the power lines. The town's sole water-well pump operates on electrical power and the Town now has a generator for back-up power due to an action item from the 2006 plan.

Winter storm was actually rated highest on this year's survey. The high numbers of elderly who have difficulty clearing their driveways and dealing with frozen pipes and the high numbers of people working out of Town may have been factors in this rating.

2014 ACTION ITEMS

There are no new action items for 2014 but there are still plenty to get accomplished.

The alarm system for well #3 needs to get operational. Due to the different location of Town Hall the signal alignment needs to be done.

A back up well should be considered after 2016.

Develop an emergency notification system. Coordination with the County Sheriff's Dept. to develop a siren system to notify people in the flood area of a flood event ahead of time and could develop some code for a wind event etc. The pole and power are available.

Improve drainage on Town streets. Develop a schedule to clean culverts and perhaps increase size or add new if necessary.

Creek channels cleared and maintain Blackhorse flood dike. On -going project

Obtain Technical Assistance in order to update the Town Comprehensive Plan.

5.31

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 – for Multi-Hazard #1; or FH #3 – for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)	
MH-5T		Goal 5	
Proposed Action Title:			
Alarm for water pump malfunction and back up water supply- Lexington			
Rationale for Proposed Action Item: (What critical issues will the action address?)			
The Town of Lexington has no alarm for their water supply system and their back up supply. See The Risk Assessment Summary for South Morrow County.			
Ideas for Implementation:			
Install The alarm systems as required.			
Coordinating Organization:		Town of Lexington	
Internal Partners:		External Partners:	
Lexington		State or Federal Resource Agency	
Timeline:		If available, estimated cost:	
Short Term (0-2 years)	Long Term (2-4 or more years)		
X			
Form Submitted by:		Lexington Rep. to Planning Staff	

Alarm Installed

Mitigation Action Progress Report Form

Progress Report Period	From Date: 11-28-06	To Date: 2-3-14
Action/Project Title	Alarm for water pump malfunction + backup water supply	
Responsible Agency	Town of Lexington	
Contact Name	Jean Brazell	
Contact Phone/Email	541-989-8515 town055@centurytel.net	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project canceled <input type="checkbox"/> Project on schedule <input checked="" type="checkbox"/> Anticipated completion date: December 2014 if not before <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

The system was actually installed at old Town Hall and working, but with the demolition of the building, it was moved to new town hall but the antennas need alignment from well to get a signal.

2. What obstacles, problems, or delays did the project encounter?

One antenna was damaged & needs replacing and the system set up once again.

3. If uncompleted, is the project still relevant? Should the project be changed or revised?

4. Other comments

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 - for Multi-Hazard #1; or FH #3 - for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)
Proposed Action Title:		Goal 5 Structural Project
Creek Channels, Cleared / Maintain Flood Dike		
Rationale for Proposed Action Item: (What critical issues will the action address?)		
Keep Willow Creek Channel and Blackhorse Channel clear of weeds and debris. Maintain strength and height of ditch sides ("dike") on Blackhorse flowway.		
Ideas for Implementation:		
Obtain work crew assistance from local community corrections.		
Coordinating Organization:	Lexington Town Council	
Internal Partners:	External Partners:	
	Umatilla/Morrow Community Corrections Two Rivers Work Crew / Corp of Engineers	
Timeline:	If available, estimated cost:	
Short Term (0-2 years)	Long Term (3-4 or more years)	
Form Submitted by:	Lexington Town Council	

Developed at Special Council Meeting on 11/28/06

Worksheet 7.1
Mitigation Action Progress Report Form

Mitigation Action Progress Report Form

Progress Report Period	From Date: 11-28-06	To Date: 2-3-14
Action/Project Title	Creek Channels, Cleared / maintain Flood Dike	
Responsible Agency	(Town of Lexington) & (Morrow County Water & Soil Conservation)	
Contact Name	Jean M. Brazell Janet Greenup	
Contact Phone/Email	541-989-8515	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project canceled <input checked="" type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

The Blackhorse flood dike has been mostly cleared of matrimony vine & other tree type vegetation. Willow Creek is the concern of M.C. Water & Soil Conservation.

2. What obstacles, problems, or delays did the project encounter?

To be absolutely complete, maintenance must continue on a yearly basis. Complaints about trees in Willow Creek will have to be addressed with Morrow County.

3. If uncompleted, is the project still relevant? Should the project be changed or revised?

4. Other comments

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 - for Multi-Hazard #1; or FH #3 - for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)
MH #1		Goal 5 Structural Project
Proposed Action Title: Relocate Town Hall/Fire Department		
Rationale for Proposed Action Item: (What critical issues will the action address?)		
<p>Lexington's Town Hall/Fire Dept. is currently located in the floodway and is also in a designated Special Flood Hazard Zone. The building, which is a concrete-block structure, cannot be physically moved. To accomplish relocation it will be necessary to acquire an alternate site for the facility(ies) which is secure from flood and provides satisfactory access to and for emergency vehicles during flood and other natural hazard incidents. A site currently available offers a building suitable for Town Hall purposes with adjoining lots adequate for construction of a Fire Hall. The current Town Hall/Fire Dept. building would need to be demolished and the site hydro-seeded for permanent dedication to open space.</p>		
Ideas for Implementation:		
<p>Apply for grant monies to accomplish the project. Arrange for local match through a combination of donated cash, property and services.</p>		
Coordinating Organization:	Lexington Town Council	
Internal Partners:	External Partners:	
	State and/or Federal Resource Agency	
Timeline:	If available, estimated cost:	
Short Term (0-2 years)	Long Term (3-4 or more years)	\$94,500
X		
Form Submitted by:	Town of Lexington	

Mitigation Action Progress Report Form

Progress Report Period	From Date: 11-28-06	To Date: 2-3-14
Action/Project Title	Relocate Town Hall / Fire Department	
Responsible Agency	FEMA Grant Lexington Bond/Bank of Eastern OR	
Contact Name	Jean Brazell	
Contact Phone/Email	541-989-8515 town055@centurytel.net	
Project Status	<input checked="" type="checkbox"/> Project completed <input type="checkbox"/> Project canceled <input type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

New Town Hall was purchased and renovated. Plans for a new fire hall were made, funding secured, and building completed. Old Town Hall / Fire hall demolished.

2. What obstacles, problems, or delays did the project encounter?

It just takes one step at a time, but I guess convincing the fire department the building would be adequate as well as what the town could afford.

3. If uncompleted, is the project still relevant? Should the project be changed or revised?

4. Other comments

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 - for Multi-Hazard #1; or FH #3 - for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)	
MH		Goal 5 Structural Project	
Proposed Action Title: Obtain Emergency Generators			
Rationale for Proposed Action Item: (What critical issues will the action address?)			
<p>Lexington is entirely dependent on electrical power in order to operate its water-well pump, which is the sole source of drinking water for the Town, and its critical facility (Fire Department) functions. Revenues expected from ordinary sources are insufficient to cover the cost of emergency generators for these purposes.</p>			
Ideas for Implementation:			
<p>Apply for grant monies to accomplish the project. Arrange for local match through a combination of donated cash and general fund revenue.</p>			
Coordinating Organization:		Lexington Town Council	
Internal Partners:		External Partners:	
		State and/or Federal Resource Agency	
Timeline:		If available, estimated cost:	
Short Term (0-2 years)	Long Term (3-4 or more years)	\$15,000	
X			
Form Submitted by:		Town of Lexington	

Worksheet 7.1
Mitigation Action Progress Report Form

Mitigation Action Progress Report Form

Progress Report Period	From Date: 12/2006	To Date: 3/2014
Action/Project Title	Obtain Emergency Generators	
Responsible Agency	Town of Lexington	
Contact Name	Jean Brazell	
Contact Phone/Email	541-989-8515	
Project Status	<input checked="" type="checkbox"/> Project completed <input type="checkbox"/> Project canceled <input type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Emergency generator for well #3 has been obtained and installed.

2. What obstacles, problems, or delays did the project encounter?

~~money~~ It took some years to get it installed due to money shortage.

3. If uncompleted, is the project still relevant? Should the project be changed or revised?

N/A

4. Other comments

Action Item Proposal Form

Proposed Action Item Identification: (Example: MH #1 - for Multi-Hazard #1; or FH #3 - for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)
Proposed Action Title: Develop Emergency Notification System		Goal 3 Preventative
Rationale for Proposed Action Item: (What critical issues will the action address?)		
<p>The Town recognizes the need to develop a plan or mechanism by which to rapidly inform the Town's residents in the event of emergency or disaster and to continue to provide essential information throughout.</p>		
Ideas for Implementation:		
<p>Develop a plan through collaboration of staff, officials and interested parties, together with strategies for implementation</p>		
Coordinating Organization:	Town of Lexington	
Internal Partners:	External Partners:	
Timeline:	If available, estimated cost:	
Start Term (0-2 years)	End Term (3-4 or more years)	
Form Submitted by:	Town of Lexington	

Developed at Town Council Meeting 11/28/06

Mitigation Action Progress Report Form

Progress Report Period	From Date: 11-28-06	To Date: 2-3-14
Action/Project Title	Develop Emergency Notification System	
Responsible Agency	Town of Lexington	
Contact Name	Jean Brazell	
Contact Phone/Email	541-989-8515 Town055@centurytel.net	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project canceled <input checked="" type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

A map of the Town has been developed with address, names & phone numbers.

2. What obstacles, problems, or delays did the project encounter?

Because Town Hall was moved the siren was disconnected because fireman are called out wireless.

3. If uncompleted, is the project still relevant? Should the project be changed or revised?

Now, decision needs to be made about where to locate the pole; how do we tie into the county to run the siren; and procedures for drills & signals for kind of disaster.

4. Other comments

Action Item Proposal Form

20606

Proposed Action Item Identification: (Example MH #1 - for Multi-Hazard #1; or FH #3 - for Flood Hazard #3)		Alignment with these Goals: (List each the action helps to achieve.)
MH		Goal 5 Structural Project
Proposed Action Title: Obtain back-up water well		
Rationale for Proposed Action Item: (What critical issues will the action address?)		
Lexington currently has only one water-well in operation, which is the sole source of drinking water for the town. A new well must be sited and constructed.		
Ideas for Implementation:		
Apply for grant monies to accomplish the project. Arrange for local match through a combination of donated cash and general fund revenue.		
Coordinating Organization:	Lexington Town Council	
Internal Partners:	External Partners:	
	Oregon Water Resources Department State/Federal Funding Agencies	
Timeline:	If available, estimated cost:	
Short Term (0-2 years)	Long Term (3-4 or more years)	\$30,000 \$100,000 (VBD) corrected after public discussion 11/28/06
X		
Form Submitted by:	Town of Lexington	

Worksheet 7.1
Mitigation Action Progress Report Form

Mitigation Action Progress Report Form

Progress Report Period	From Date: 11-28-06	To Date: 2-03-14
Action/Project Title	Obtain back-up water well	
Responsible Agency	Town of Lexington	
Contact Name	Jean Brazell	
Contact Phone/Email	541-989-8515 town055@centurytel.net	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project canceled <input type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input checked="" type="checkbox"/> Project delayed Explain <u>Financial reasons</u>	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Different Engineering Agencies were contacted for possible scenarios. Community members couldn't agree. Had a \$125,000 loan to pay off for piping update.

2. What obstacles, problems, or delays did the project encounter?

Loan will be paid off in 2016. Community willing to proceed w/ engineers.

3. If uncompleted, is the project still relevant? Should the project be changed or revised?

Yes - very relevant

4. Other comments

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 - for Multi-Hazard #1; or FH #3 - for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)
Proposed Action Title:		Goal 3: Preventative
Obtain Technical Assistance in order to update the Hazards Section of Town Comprehensive Plan and Zoning Ordinance		
Rationale for Proposed Action Item: (What critical issues will the action address?)		
<p>Currently the Town has no Hazards section included in its Comprehensive Plan, does not have staff with the technical training and skills to accomplish an update that will comply with State standards, and does not have funds with which to obtain professional assistance.</p>		
Ideas for Implementation:		
<p>(1) Obtain model plan updates, either from the state or from similarly situated Towns or Cities which have incorporated such updates into their Plans; (2) make necessary adjustments specific to Lexington circumstances and needs using current staff and volunteer services; (3) obtain funding to pay for professional services to review the Plan and modify as necessary to comply with mandatory standards.</p>		
Coordinating Organization:	Town of Lexington	
Internal Partners:	External Partners:	
	LCDC, Morrow County Planning, State or Federal funding resource	
Timeline:	If available, estimated cost:	
Short Term (0-2 years)	Long Term (3-4 or more years)	\$2000.00 for professional services
X		
Form Submitted by:	Lexington Town Council	

Mitigation Action Progress Report Form

Progress Report Period	From Date: <u>12/2006</u>	To Date: <u>3/2014</u>
Action/Project Title	<u>Obtain Technical Assistance in order to update the Hazard's Section of the Comp. Plan & Zoning Ordinance.</u>	
Responsible Agency	<u>TOWN OF LEXINGTON</u>	
Contact Name	<u>Jean Brazell</u>	
Contact Phone/Email	<u>541-989-8515</u>	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project canceled <input type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input checked="" type="checkbox"/> Project delayed Explain <u>still working on how to do this.</u>	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?
Nothing

2. What obstacles, problems, or delays did the project encounter?
Lack of money, expertise

3. If uncompleted, is the project still relevant? Should the project be changed or revised?
Still relevant.

4. Other comments

Action Item Proposal Form

466
08

Proposed Action Item Identification: (Example: MH #1 - for Multi-Hazard #1; or FH #3 - for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)
MH		Goal 5 Structural Project
Proposed Action Title: Improve drainage on C Street		
Rationale for Proposed Action Item: (What critical issues will the action address?)		
<p>C Street lies at the lowest elevation in town and regularly accumulates significant water from storm run-off and flood events. Improved drainage combined with re-surfacing of the street will facilitate east-west travel through town during emergency events and decrease the potential for traffic hazard at the intersection of C Street and Highway 74.</p>		
Ideas for Implementation:		
<p>Apply for grant monies to accomplish the project. Arrange for local match through a combination of donated cash and general fund revenue.</p>		
Coordinating Organization:	Lexington Town Council	
Internal Partners:	External Partners:	
	ODOT	
Timeline:	If available, estimated cost:	
Short Term (0-2 years)	Long Term (3-4 or more years)	\$25,000
X		
Form Submitted by:	Town of Lexington	

Mitigation Action Progress Report Form

Progress Report Period	From Date: 11-28-06	To Date: 2-03-14
Action/Project Title	Improve Drainage on C St	
Responsible Agency	Town of Lexington	
Contact Name	Jean Brazell	
Contact Phone/Email	541-989-8515 Town055@centurytel.net	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project canceled <input type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input checked="" type="checkbox"/> Project delayed Explain: Fire Dept. not able w/ man power	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Fire Dept. tried to clean culvert but needed more time & man power. But part of the culvert was cleared of debris

2. What obstacles, problems, or delays did the project encounter?

No time + man power

3. If uncompleted, is the project still relevant? Should the project be changed or revised?

Yes

4. Other comments

Action Item Proposal Form

1112-1-1-1

06-10
09

Proposed Action Item Identification: (Example MH #1 - for Multi-Hazard #1; or FH #3 - for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)
MH		Goal 5 Structural Project
Proposed Action Title: Improve drainage on Town Streets		
Rationale for Proposed Action Item: (What critical issues will the action address?)		
Storm water run-off backs up at culverts on C Street, East Street, F Street, Water Street and Arcade Street in locations that threaten to spill over intersections with State Highways or onto private property.		
Ideas for Implementation:		
Establish a schedule for clearing the culverts; assess existing culverts to determine if a larger size is necessary to prevent clogging.		
Coordinating Organization:	Lexington Town Council	
Internal Partners:	External Partners:	
Timeline:	If available, estimated cost:	
Short Term (0-2 years)	Long Term (3-4 or more years)	
X		
Form Submitted by:	Town of Lexington	

Worksheet 7.1
Mitigation Action Progress Report Form

Mitigation Action Progress Report Form

Progress Report Period	From Date: <u>11-28-06</u>	To Date: <u>2-03-14</u>
Action/Project Title	<u>Improve Drainage on Town Streets</u>	
Responsible Agency	<u>Town of Lexington</u>	
Contact Name	<u>Jean Brazell</u>	
Contact Phone/Email	<u>541-989-8515 Town 0.55@centurytel.net</u>	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project canceled <input type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input checked="" type="checkbox"/> Project delayed Explain <u>Tried to work with state w/ F&T drainage over Hwy 74 when new paving was done but no response.</u>	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Our fire department tried to clean out culverts to help with drainage. ^{Clay} F&T needs something done to get water to go into ditch or culverts.

2. What obstacles, problems, or delays did the project encounter?

They haven't been done regularly so build up in culverts was maximum & hard to remove.

3. If uncompleted, is the project still relevant? Should the project be changed or revised?

Yes

4. Other comments

PRE-DISASTER MITIGATION PLAN

OVERVIEW OF ACTION ITEMS FROM 2006

GOAL 5: Improve drainage on Town streets: Storm water run-off backs up at culverts on C St., East Street, F Street, Water Street and Arcade Street in location that threaten to spill over intersections with State Highway or onto private property. (Specifically, N. F St. over Hwy 74)

GOAL 5: Improve drainage on C Street: C Street lies at the lowest elevation in town and regularly accumulates significant water from storm run-off and flood events. Improved drainage combined with resurfacing of the street will facilitate east-west travel through town during emergency events and decrease the potential for traffic hazard at the intersection of C Street and Highway 74.

GOAL 5: Obtain back-up water well: Lexington currently has only one water-well in operation, which is the sole source of drinking water for the town. A new well must be sited and constructed. Apply for grant monies to accomplish the project. Arrange for local match through a combination of donated cash and general fund revenue.

Goal 5: Obtain emergency Generators: Lexington is entirely dependent on electrical power in order to operate its water-well pump, which is the sole source of drinking water for the Town, and its critical facility (Fire Dept.) functions. Revenues expected from ordinary sources are insufficient to cover the cost of emergency generators for these purposes. Apply for grant monies to accomplish project. **Done**

Goal 5: Relocate Town Hall/Fire Department: Currently located in the floodway etc. **Completed**

Goal 5: Creek Channels cleared/maintain food dike: Obtain work crew assistance from local community corrections. **Completed, but needs yearly upkeep.**

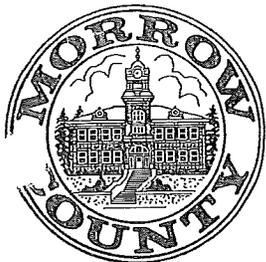
Goal 5: Alarm for water pump malfunction and back up water supply; Complete, but not operational

Goal 3: Develop Emergency Notification System: Develop plan or mechanism to rapidly inform the Town's residents in the event of emergency or disaster and to continue to provide essential information throughout.

Goal 3: Obtain Technical Assistance in order to update the Hazards Section of Town Comprehensive Plan and Zoning Ordinance. Obtain model plan updates; make necessary adj. specific to Lex.; obtain funding to pay for professional services.

.....

Need: Any additional action items
Ideas for implementation of any of the action items listed.
List of external partners; example: Oregon Water Resources Dept.; State/Fed. Funding Agencies
Time line expected to get it done: 0-2 yrs; long term: 2-4 years
If available, estimated cost.



PLANNING DEPARTMENT

P. O. Box 40 • Irrigon, Oregon 97844
(541) 922-4624 or (541) 676-9061 x 5503
FAX: (541) 922-3472

Agenda Natural Hazard Mitigation Plan Lexington Annex Portion January 14, 2014

- I. Introduction and Purpose of this Discussion.
- II. Natural Hazard Mitigation and how it affects Lexington
 - History of problems with natural disaster events in Lexington.
 - Previous Mitigation work
 - Relocation of Town Hall/Fire Department
 - Development of an Emergency Notification System
 - Action Items from 2006 Plan
 - Develop flood control system between Clay Street and F Street
 - Establish emergency evacuation location of the Town Office
 - Install Alarm for the water supply system
 - Keep Willow Creek Channel and Blackhorse Channel clear of weeds and debris. Maintain strength and height of ditch sides ("dike") on Blackhorse flow way.
 - Relocate Town Hall and Fire Department.
 - Obtain Emergency Generators.
 - Develop Emergency Notification System.
 - Obtain Back-up water well.
 - Obtain Technical Assistance in order to update the Hazards Section of Town Comprehensive Plan and Zoning Ordinance.
 - Improve Drainage on C Street.
 - Improve Drainage on Town Streets.
 - Review of other Natural Hazard Risks
- III. Discussion of Hazard Events in Lexington in the last 7 years
 - Was the infrastructure adequate?
 - Was the response by professionals and public adequate?
 - Is there a need for more training or education?
- IV. The Community Profile Review. Are there changes to or new information regarding community social systems, especially organizations providing services to children elderly low income, businesses?
- V. Local Community Plans. Has there been recent changes to community plans in relation to hazard mitigation? Are there any programs or plans that should be reviewed and updated? Specifically to:
 - Comprehensive Plan
 - Emergency Operations Plan
 - Stormwater Management Plan
 - Capital improvement Plan
 - Parks and Open Space Plan
 - Floodplain Ordinances

MINUTES OF THE PRE-MITIGATION DISASTER PLAN UPDATE MEETING

January 14, 2014

6:30PM Town Hall

Present:

Morrow County Planning Dept. Members: Lori Timmons, Layne WolfmueLLer, and Carla McLane.

Council Members: Mayor Jean Brazell: Councilors: Beverly Steagall, Will Lemmon, & Billee Owen

Community Members: John and Dorothy Edwards, and Shirley McCarl

Recorder: Deanna Gurinko **Fire Chief:** Charlie Sumner

Mayor Brazell opened the meeting at 6:30PM, introducing the members of the planning department. Carla McLane explained that the county was required to have the PDMP put together in 2005-2006 by FEMA and the communities of Morrow County were to be included with their specific needs in the plan. Because Lexington included the Fire Hall/Town Hall being in the floodway, the Town was able to get funds from FEMA to relocate. If a disaster like flooding had happened, the Town would have received no funding from FEMA because we would have had no plan.

The Action Items from 2006 were reviewed and need to be entered on the Mitigation Action Progress Report Form, stating their status, worksheet 7.1. See overview provided by Mayor Brazell.

Once the Action Items have been reviewed, then new action items can be identified or action items from the previous 2006 plan, that are not complete, may be rewritten.

A Household Survey, showing their concerns, was returned by community members and reviewed. See attached sheet. More surveys were collected and the material will need to be updated.

The Action Items and community profile need to be completed by the first of March, as March 4th is the steering committee's meeting. A resolution to adopt the plan in its entirety will need to be done at the March council meeting.

Beverly Steagall moved to schedule an Action Item review meeting for Tuesday, Jan. 28th at 6:30 PM at Town Hall. Will Lemmon second the motion and all council present voted, yes.

This meeting was adjourned and the regularly scheduled council meeting continued.

Respectfully submitted by Jean Brazell, Mayor



**PRE-DISASTER MITIGATION PLAN
SECOND COMMUNITY MEETING
JANUARY 28, 2014
6:30 PM TOWN HALL**

Council Members Present: Mayor Jean Brazell; Councilors: Annette Sherman, Billie Owen, and Beverly Steagall

Community Members Present: Lori McCabe, John Edwards, Dorothy Edwards, Shirley McCarl, Edie Papineau and Earl Papineau

Mayor Brazell passed out the Town of Lexington general information paper that had been updated from 2006 plan. People reviewed and questioned the road department, Hatt's and MCGG employee numbers. MCGG had been called but was told it was no one's business how many employees they had. The number from the 2006 plan was given and we were told that was good enough.

Mayor Brazell then reviewed the Household Survey Updated report of 40 surveys. See the attached survey report. The natural hazard this community seems to be most concerned about was a wind storm. To coincide with that tumbleweeds and trees near the house were major vulnerabilities.

Mayor Brazell then handed out an overview of the action items from 2006.

Goal 5: Improve drainage on Town Streets; needs to remain as an action item.

Goal 5: Improve drainage on C Street; needs to remain an action item.

Goal 5: Obtain back-up water well; needs to be on as a higher priority.

Goal 5: Obtain emergency generator; Have one for the well. Remove from list.

Goal 5: Relocate Town Hall/Fire Department; both are relocated out of the flood plain. Remove.

Goal 5: Creek Channels cleared/maintain flood dike; Completed but needs yearly update and check for holes in dyke.

Goal 5: Alarm for water pump malfunction and back up water supply; The alarm is in place but due to the moving of the town hall the installer needs to be contacted to get the system back in place.

Goal 3: Develop Emergency Notification System; Need to keep on the list.

Goal 3: Obtain Technical Assistance in order to update the Hazards section of The Town Comprehensive Plan and Zoning Ordinance. Need to take a look at them and see if they need updating or were updated.

It was discussed to talk with the County and our Fire Department about burning tumble weeds in ditches around the Town to help stop wild fires and to talk with the weed district to get the weeds under control before they get to the tumbleweed stage.

Councilor Owen moved to adjourn the meeting. Councilor Sherman seconded the motion and the motion was agreed upon by all.

Respectively submitted by: Councilor Beverly Steagall

LEXINGTON PRE-MITIGATION DISASTER PLAN SPECIAL MEETING

January 28, 2014

6:30PM TOWN HALL

ATTENDANCE SHEET

Annette Sherman
Earl + Edith Papineau
Shirley McCarl
Sereuly Stogall
Jeanne Brazell
Bills & Dwan

John Edwards
Donna Edwards
Loni McCall



Town of Lexington – Morrow County Pre-Disaster Mitigation Plan Update

Issue Summary

In conjunction with the Oregon Partnership for Disaster Resilience (OPDR), Morrow County is currently in the process of updating its Pre-Disaster Mitigation Plan (PDMP). This is a great opportunity for cities within the county to participate in the update process in order to maintain or acquire eligibility for federal funding to implement hazard mitigation projects locally. Consensus built through the inclusion of cities and other agency stakeholders throughout Morrow County will improve the plan implementation process as well as the final PDMP, and will ultimately aid the process of building more resilient communities.

Morrow County Multi-Jurisdictional PDMP Update

A Pre-Disaster Mitigation Plan forms the foundation for a community's long-term strategy to reduce disaster losses and break the cycle of disaster damage, reconstruction, and repeated damage. It creates a framework for risk-based decision making to reduce damages to lives, property, and the economy from future disasters.

The Federal Emergency Management Agency (FEMA) approved the current Morrow County PDMP on December 15, 2006. In accordance with the five-year FEMA update and re-approval requirement, the plan recently lapsed on December 15, 2011.

In order for a jurisdiction within Morrow County to individually maintain eligibility for FEMA's Pre-Disaster Mitigation and Hazard Mitigation Grant Programs, participation from the jurisdiction must be documented within the county's plan. The code of federal regulations mandates the following:

- Multi-jurisdictional Participation - **§201.6(a) (3)**: *Multi-jurisdictional plans (e.g., watershed plans) may be accepted, as appropriate, as long as each jurisdiction has participated in the process.*
- Multi-jurisdictional Risk Assessment - **§201.6(c) (2) (iii)**: *For multi-jurisdictional plans, the risk assessment must assess each jurisdiction's risks where they vary from the risks facing the entire planning area.*
- Multi-jurisdictional Mitigation Strategy - **§201.6(c) (3) (iv)**: *For multi-jurisdictional plans, there must be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan.*
- Multi-jurisdictional Plan Adoption - **§201.6(c) (5)**: *For multi-jurisdictional plans, each jurisdiction requesting approval of the plan **must** document that it has been formally adopted.*

This project is being funded through FEMA's Pre-Disaster Mitigation Grant Program; Planning Project

for Mid-Columbia Gorge County PDMP Updates (Grant Number: EMS-2011-PC-0002).

Town of Lexington Criteria for Involvement

In order to document involvement from jurisdictions within Morrow County and complete the plan update on schedule, it is suggested that the Town of Lexington complete the following over the next year:

Establish a Mitigation Plan Steering Committee (Winter 2012)

- Establish the Town of Lexington Pre-Disaster Mitigation Plan Steering Committee
- Identify and invite new participants and external partners (e.g. Red Cross, Hospitals, School Districts, etc.)

Develop a Public Involvement Strategy (Spring 2012)

- Establish strategies that encourage public involvement
- Outreach strategies may include public information workshops, city newsletters, and press releases

Collect Data (Spring 2012)

- Collect mitigation plan maintenance meeting agendas and minutes since 2006
- Collect documentation related to any hazard occurrences or emergency declarations in the Town of Lexington since 2006
- Identify and document plan implementation activities, including completed projects and other "success stories"
- Collect any local, state, or federal studies or reports completed since 2006 if available

Important Steps for the Town of Lexington

- Attend and participate in Morrow County's PDMP Steering Committee meetings
- Brief city administration on project
- Establish and convene a Town of Lexington PDMP Steering Committee at least once
- Notify public with a Public Service Announcement - we can help write it and contact local news outlets
- Identify potential stakeholder groups

Steering Committee Involvement

The Steering Committee will be tasked with ensuring that there is adequate stakeholder representation from the community. OPDR is committed to moving the process along in as efficient a manner as possible and will look to combine tasks and limit the total number of steering committee meetings wherever possible.

Project Outcome

Our primary measure of success for this project will be the adoption of an updated Morrow County PDMP. Ultimately it will be the process cities go through in the planning effort and the eventual implementation of the plans, not the plans themselves, which will be the true indicators of success resulting from this project.

Should you have any questions or concerns, please do not hesitate to contact either Garrett Jensen at 541.298.4101 ext. 230 or via email at garrett.jensen@mccog.com, or Josh Bruce at 541.346.7326

HOUSEHOLD SURVEY REPORT 1/2014

40 RECEIVED OUT OF 120

TOTAL MEMBERS LIVING IN HOUSEHOLDS: 94

Over the age of 65: 37 Under 7: 2 Those with special needs: 6 (2 wheel chair) 1 chlorine

Employed: in Town: 7 Out of Town: 23

Children in school: 12 Heppner: 8 Ione: 2 BMCC: 1 College: 3

Special Skills: Mechanical, financial management, public health, teaching, lineman, construction, CPR-
First aid, veterinarian, firefighter

	#1	#2	#3	#4	#5
Natural Hazards:					
Flood	8	7	3	3	3
Drought	1	5	4	5	7
Wildfire	3	3	6	5	6
Winter storm	7	6	7	7	1
Wind storm	15	5	6	0	1
Earthquake	1				

House: Wood frame: 19 Brick: 4 Mobile Home: 12 RV : 1 Basement: 9

Other Vulnerabilities:

Accumulate tumbleweeds: 7
Trees near house: 19
S/SW facing windows: 15
Storm drainage clog problems: Beard, McCarl, Winters, Alldritt
Dead end St.: 6
Flood plain: 7

Other concerns:

Intersection of F St., MCGG, and Hatt's—accident
Stolen items from pickup---street light
Stop wind to make secure of potential loss
Elevate home, trim trees
Gravel roads when icy, trim trees in power line
H St. needs gravel
Garbage (2), dead cars (2), dogs (3)
Fix water meter cover: Alldritt
Keep Blackhorse and creek clear of weeds (3)
Clean up property with many RV's
Update ordinances and enforce them
Neighbor's dead tree

NOTICE!

SPECIAL LEXINGTON TOWN COUNCIL MEETING

TUESDAY, JANUARY 28, 2014

6:30 PM AT TOWN HALL

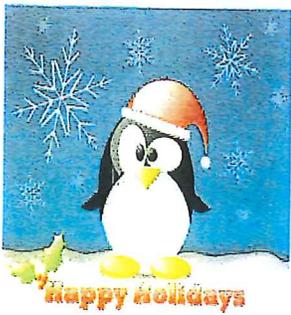
PRE-MITIGATION DISASTER PLAN UPDATE

SEND IN HOUSEHOLD SURVEY IF YOU HAVEN'T ALREADY!

LEXINGTON CITIZENS ENCOURAGED TO ATTEND

POSTED 1/17/14

Posted at Hettis



Lexington News

December 2013

Have a Merry Christmas!

Let's light up Lexington for the holidays.
Put lights on a tree outside or outline your porch or door with lights.
Simple but cheery works!
Have a great Holiday Season!

New Council Member

Annette Sherman stepped up to the plate to serve in Kirk Looslie's vacant position on council. She was sworn into office November 12th. Thank you, Annette, for caring about your community. A full council is important.
Remember, in November of 2014 there will need to be four positions filled, including the mayor. Be thinking about it!

NEXT COUNCIL MEETING TUESDAY, DECEMBER 10TH, 7PM!

DON'T FORGET TO INSULATE YOUR WATER METER!

Lexington's Strategic Plan Update

A Strategic Plan outlines the goals of the COMMUNITY for its Town and is often used by granting agencies to see if the community is behind a project through their goal setting. Lexington's plan needs to be updated as the fire hall project is complete.

Council has set Tuesday, January 7th at Town Hall for the update meeting. Sheryll Bates will be leading the session. Please come and help the council set goals for the coming years. Community input is an important part of this process.

Money Received!

The Town has received \$11,471 from its bonding insurance company. Based on the report given to the Morrow County District Attorney, by the Morrow County Sherriff's Department, the bonding company felt that over four years this was the amount wrongfully taken through the use of the Town's VISA card.

Pre-Disaster Mitigation Plan Update

The PDMP update for the County as well as the cities is also in progress. This year the community must meet to help set its goals. In 2006, Jean Brazell met with this group and helped with our vision for the community with regard to natural hazards; our mission statement; goal setting to identify how the community intends to work toward mitigating risk from natural hazards; and action items detailing recommendations for activities that local departments, citizens and others could engage in to reduce risk.

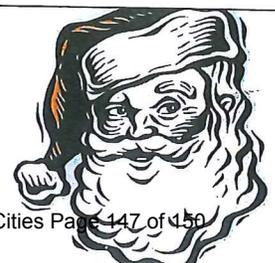
One of those action items was to remove Town Hall/Fire Hall from the flood plain. Because this was set up as an action item, Mayor Doherty was able to get the grant from FEMA for the new Town Hall/Fire Hall. A new fire hall was also in our Strategic Plan and Wild Horse graciously gave us a grant for \$20,000 to help with the cost of it.

Someone from the County Land Use Planning Department will be coming to help with this session. At present it is hoped that both of these session can occur the same evening. More information will be forthcoming in the January newsletter.

MARK YOUR CALENDAR ON JANUARY 7TH FOR COMMUNITY INPUT!

ODOT CONFIRMATION

ODOT sent a letter of confirmation that the F Street paving project will receive \$50,000 to be done after January 2014. Yeah!



January 2014

Have a SAFE and FUN New Years!



Thanks to the person/persons responsible for displaying the Oregon State Flag on the down town flag pole.

READ THIS INFORMATION!!!

ALERT!

YOUR INPUT IS NECESSARY TO PLAN FOR COMMUNITY GOALS AND ACTION ITEMS THAT WE MIGHT DO TO AVERT MINIMAL DAMAGE IN CASE OF A DISASTER

WHY?

MONEY!

FEMA or other lending/granting agencies might pass us by if the Town does not have these plans in place.

WHEN?

Tuesday, January 7th, 7PM at Town Hall our **Strategic Plan** will be updated with community goals. **Goals** to consider: **Water System Development**---looping completed, reservoir addition, back up well; **Waste water system**---land can't be developed because not enough room for a septic system; **Road-sidewalk** repairs and upgrades; **Housing rehabilitation in Lexington**. Are there any other items? Priorities? How do we go about accomplishing it? Cheryle Bates will be here to help us with the process.

Tuesday, January 14th, 6:30 PM, before council meeting, to update Lexington's Pre-mitigation Disaster Plan.

PLEASE FILL OUT THE SURVEY FORM AND RETURN TO TOWN HALL; BY MAIL, IN PERSON, IN DROP BOX, or call so someone can pick it up, BY THURSDAY, JANUARY 9TH. The information can then be collated before the meeting. It's important that this information be secured. Someone from the Morrow County Planning Dept. will be here to help us with this process.

The goal of the Pre-Mitigation Disaster Plan is to help guide directions of future activities aimed at reducing risk and preventing loss from natural hazards; like removing Town Hall and the Fire Station from the flood plain. Think of other things the Town might do to help keep people safe. Notification system in case of disaster was suggested.

PLEASE COME AND BE A PART OF THIS IMPORTANT PLANNING SESSION

OR

WRITE AND TELL US SOME OF YOUR IDEAS, IF YOU HAVE A CONFLICT.

VERY IMPORTANT TO HAVE INPUT!

Thanks to everyone that "lit up Lexington" with Christmas lights!

Lexington
News
Letter



February 2014



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HOUSEHOLD SURVEY RESULTS

Thanks to all forty households who filled out the Household Survey to date. Here are some of the results:

Ninety-four people lived in the households.

Thirty-seven are over the age of sixty-five.

Seven are employed in town.

Twenty-three are employed out of town.

Those natural hazards ranked #1: Flood-8; drought-1; wildfire-3; windstorm-16; winter storm -8; and, earthquake was added by 1.

Those natural hazards ranked #2: flood-7; drought-5; wildfire-3; windstorm-5; winter storm-6.

Windstorm seemed to be of highest concern of those sending in the survey.

Nine homes have basements.

High scoring other vulnerabilities were trees near the house and S/SW facing windows

STRATIGIC PLAN UPDATE

Thank you to Sheryll Bates, who came January 7 to moderate our Strategic Plan update goals. Seven people of the community attended. Of the seven goals determined in 2009, only one was accomplished: Develop a website for the Town of Lexington. It is www.lexingtonoregon.com and you can read the newsletters, minutes of meetings, and find out about businesses and organizations in town.

The other goals left in place were: water system upgrades; needed wastewater system; improve residential lot availability; establish community recreational area; upgrade and maintain existing road system within town; and promote housing rehabilitation in Lexington.

PRE-MITIGATION DISASTER PLAN

On January 14th, Lori Timms, Carla McLane, and Layne Wolfmueller of the Morrow County Planning Dept. came to help update the PMDP. Unlike the Strategic Plan, most of these action items were completed. Two action items completed need to have maintenance on the equipment, which is scheduled. Seven folks from the community attended. **January 28th at 6:30PM new action items are to be discussed and the community is encouraged to attend.**

THANK YOU

Thank you to both, Deanna Gurinko, Town Recorder, and Jonathan Shaw, Maintenance for their service to the community. Both resigned the 23rd and 24th respectively. We are now in the process of searching for replacements. If you are interested come to Town Hall, you might call first, and pick up an application and job description. You may call 541-989-8132 and leave a message.

Thank you for the expertise of Tashina Rushlow, Kim Carter of Lone and Tarina Foster of Heppner for helping us with specific programs over the year. Their help has been much appreciated.

COMMUNITY CONCERN FROM SURVEY---DOGS

If dogs are bothering your property or your animals inside your fence, **catch the dog, tie it up and call 911. Give your name and address and the name of the person who owns the dog if you know.** The Sherriff's Department Personnel will come and take the dog to owner or get owner to come get it and will issue a hefty fine.

IF YOU ARE A DOG LOVER, SHOW IT BY KEEPING YOUR DOG AT HOME!

NEXT COUNCIL MEETING: TUES., FEBRUARY 11, 2014; EXECUTIVE SESSION MAY BE CALLED.

Appendix A: Resource Directory

The following appendix includes local, regional, state and federal resources for some of the hazards addressed in the plan. The directory also includes key publications and additional resources. This appendix was developed by the Community Service Center's Oregon Natural Hazards Workgroup at the University of Oregon for use by Pre-Disaster Mitigation Communities.

Multi-Hazard Mitigation Resources

County Resources

- Contact:** Morrow County Sheriff's Office
Address: P.O. Box 622, Heppner, OR 97836
Phone: 541-676-5317
Fax: 541-676-5577
Website: <http://morrowcountyoregon.com/sheriff-dep/>
- Contact:** Morrow County Public Works
Address: P.O. Box 428, Lexington, OR 97839
Phone: 541-989-9500
Fax: 541-989-8352
Website: <http://www.morrowcountyoregon.com/publicworks/index.html>
- Contact:** Morrow County Planning Department
Address: P.O. Box 40, Irrigon, OR 97844
Phone: 541-922-4624
Fax: 541-922-3472
Website: <http://www.morrowcountyoregon.com/planning/index.html>

State Resources

Department of Land Conservation and Development (DLCD)

DLCD administers the state's Land Use Planning Program. The program is based on 19 Statewide Planning Goals, including Goal 7, related to natural hazards, with flood as its major focus. DLCD serves as the federally designated agency to coordinate floodplain management in Oregon. They also conduct various landslide related mitigation activities. In order to help local governments address natural hazards effectively, DLCD provides technical assistance such as conducting workshops, reviewing local land use plan amendments, and working interactively with other agencies.

- Contact:** Natural Hazards Program Manager, DLCD
Address: 635 Capitol St. NE, Suite 200, Salem, OR 97301-2540
Phone: (503) 373-0050
Fax: (503) 378-6033
Website: <http://www.oregon.gov/LCD/HAZ/index.shtml>
Oregon Floodplain Coordinator: (503) 373-0050 ext. 250

Oregon State Police (OSP)-Office of Emergency Management (OEM)

OEM administers FEMA's Hazard Mitigation Grant Program, which provides post-disaster monies for acquisition, elevation, relocation, and demolition of structures located in the floodplain. OEM also

administers FEMA's Flood Mitigation Assistance Program. This program provides assistance for NFIP insured structures only. OEM also helps local jurisdictions to develop hazard mitigation plans. OEM is heavily involved in flood damage assessment and works mainly with disaster recovery and hazard mitigation programs. OEM provides training for local governments through workshops on recovery and mitigation. OEM also helps implement and manage federal disaster recovery programs.

Contact: Office of Emergency Management
Address: PO Box 14370, Salem, OR 97309-5062
Phone: (503) 378-2911
Fax: (503) 373-7833
Website: <http://www.oregon.gov/OOHS/OEM/index.shtml>
OEM Hazard Mitigation Officer: (503) 378-2911 ext. 22247
Recovery and Mitigation Specialist: (503) 378-2911 xt. 22240

Oregon Department of Geology and Mineral Industries (DOGAMI)

The mission of the Department of Geology and Mineral Industries is to serve a broad public by providing a cost-effective source of geologic information for Oregonians and to use that information in partnership to reduce the future loss of life and property due to potentially devastating earthquakes, tsunamis, landslides, floods, and other geologic hazards. The Department has mapped earthquake hazards in most of western Oregon.

Contact: Deputy State Geologist, Seismic, Tsunami, and Coastal Hazards Team Leaders
Address: 800 NE Oregon St., Suite 965, Portland, Oregon 97232
Phone: (971) 673-1555
Fax: (971) 673-1562
Website: <http://www.oregongeology.com>

Federal Resources

Federal Emergency Management Agency (FEMA)

FEMA provides maps of flood hazard areas, various publications related to flood mitigation, funding for flood mitigation projects, and technical assistance. FEMA also operates the National Flood Insurance Program. FEMA's mission is "to reduce loss of life and property and protect the nation's critical infrastructure from all types of hazards through a comprehensive, risk-based, emergency management program of mitigation, preparedness, response and recovery." FEMA Region X serves the northwestern states of Alaska, Idaho, Oregon, and Washington.

Contact: FEMA, Federal Regional Center, Region 10
Address: 228th St. SW, Bothell, WA 98021-9796
Phone: (425) 487-4678
Website: <http://www.fema.gov>

United States Geological Survey (USGS)

The USGS website provides current stream flow conditions at USGS gauging stations in Oregon and throughout the Pacific Northwest. The Oregon USGS office is responsible for water-resources investigations for Oregon and part of southern Washington. Their office cooperates with more than 40 local, state, and federal agencies in Oregon. Cooperative activities include water-resources data collection and interpretive water-availability and water-quality studies.

Contact: USGS Oregon District Office
Address: 10615 S.E. Cherry Blossom Dr., Portland, OR 97216
Phone: (503) 251-3200
Fax: (503) 251-3470
Website: <http://oregon.usgs.gov>
Email: dc_or@usgs.gov

National Oceanic and Atmospheric Administration (NOAA)

NOAA's historical role has been to predict environmental changes, protect life and property, provide decision makers with reliable scientific information, and foster global environmental stewardship.

Contact: National Oceanic and Atmospheric Administration
Address: 14th Street & Constitution Avenue, NW, Room 6013, Washington, DC 20230
Phone: (202) 482-6090
Fax: (202) 482-3154
Website: <http://www.noaa.gov>
Email: answers@noaa.gov

National Weather Service, Pendleton

The National Weather Service provides flood watches, warnings, and informational statements for rivers in Morrow County.

Contact: National Weather Service, Pendleton Bureau
Address: 2001 NW 56th Drive, Pendleton, OR 97801
Phone: (541) 276-7832
Website: <http://www.wrh.noaa.gov/pdt/>

Additional Resources

American Red Cross

The American Red Cross is a humanitarian organization, led by volunteers, that provides relief to victims of disasters and helps people prevent, prepare for, and respond to emergencies. The Oregon Trail Chapter was chartered as a Red Cross unit in 1917. The chapter serves the residents of Clackamas, Columbia, Multnomah, Washington, Yamhill, and Tillamook counties. The Oregon Trail Chapter provides a variety of community services which are consistent with the Red Cross mission and meet the specific needs of this area, including disaster planning, preparedness, and education.

Contact: **Regional Director, American Red Cross**
Address: **P.O. Box 1048, Pendleton, OR 97801**
Phone: **541-276-1211**
Fax: **541-276-7193**
Website: <http://mountainriver.redcross.org>

Institute for Business & Home Safety (IBHS)

IBHS was created as an initiative of the insurance industry to reduce damage and losses caused by natural disasters. This website provides educational resources and on-line publications for insurers, businesses, and homeowners who are interested in taking the initiative to minimize future damages and losses.

Contact: Institute for Business and Home Safety
Address: 4775 E. Fowler Avenue, Tampa, FL 33617
Phone: (813) 286-3400
Fax: (813) 286-9960
E-mail: info@ibhs.org
Website: <http://www.ibhs.org/>

Flood Mitigation Resources

County Resources

Contact: Morrow County Sheriff's Office
Address: P.O. Box 622, Heppner, OR 97836
Phone: 541-676-5317
Fax: 541-676-5577
Website: <http://morrowcountyoregon.com/sheriff-dep/>

Contact: Morrow County Building Official
Address: P.O. Box 229 Boardman, OR 97818
Phone: 541-481-9252
Fax: 541-481-3244

State Resources

Department of Land Conservation and Development (DLCD)

DLCD administers the state's Land Use Planning Program. The program is based on 19 Statewide Planning Goals, including Goal 7, related to natural hazards, with flood as its major focus. DLCD serves as the federally designated agency to coordinate floodplain management in Oregon. They also conduct various landslide related mitigation activities. In order to help local governments address natural hazards effectively, DLCD provides technical assistance such as conducting workshops, reviewing local land use plan amendments, and working interactively with other agencies

Contact: Natural Hazards Program Coordinator
Address: 635 Capitol St. NE, Suite 200, Salem, OR 97301-2540
Phone: (503) 373-0050 ext. 250
Fax: (503) 378-6033
Website: <http://www.oregon.gov/LCD/HAZ/index.shtml>

Oregon Department of Fish and Wildlife (ODFW)

ODFW's mission is to protect and enhance Oregon's fish and wildlife and their habitats for use and enjoyment by present and future generations. ODFW regulates stream activity and engages in stream enhancement activities.

Contact: ODFW
Address: 3406 Cherry Avenue N.E., Salem, OR 97303
Phone: (503) 947-6000
Website: <http://www.dfw.state.or.us/>
Email: Odfw.Info@state.or.us

Oregon Department of State Lands (DSL)

DSL is a regulatory agency, responsible for administration of Oregon's Removal-Fill Law. This law is intended to protect, conserve, and make the best use of the state's water resources. It generally requires a permit from DSL to remove, fill, or alter more

than 50 cubic yards of material within the bed or banks of waters of the state. Exceptions are in state scenic waterways and areas designated essential salmon habitat, where a permit is required for all in-stream activity, regardless of size. DSL and the US Army Corps of Engineers may issue these permits jointly.

Contact: Department of State Lands
Address: 775 Summer Street NE, Suite 100, Salem, OR 97301-1279
Phone: (503) 378-3805
Fax: (503) 378-4844
Website: <http://statelands.dsl.state.or.us/>
Assistant Director: (503) 378-3805, ext. 279
Western Region Manager: (503) 378-3805, ext. 246

Oregon Water Resources Department (WRD)

The WRD's mission is to serve the public by practicing and promoting wise long-term water management. The WRD provides services through 19 watermaster offices throughout the state. In addition, five regional offices provide services based on geographic regions. The Department's main administration is performed from the central office in Salem.

Contact: WRD
Address: 725 Summer Street NE, Suite A, Salem, OR 97301-1271
Phone: (503) 986-0900
Website: <http://www.wrd.state.or.us/OWRD/index.shtml>

Federal Resources

Bureau of Reclamation

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public. The Bureau of Reclamation owns Scoggins Dam in Washington County and prepares emergency action plans for events at the dam.

Contact: Bureau of Reclamation, Pacific Northwest Region
Address: 1150 N. Curtis Road, Boise, ID 83706
Phone: (208) 378-5012
Website: <http://137.77.133.1/pn/index.html>

Army Corps of Engineers

The Corps of Engineers administers a permit program to ensure that the nation's waterways are used in the public interest. Any person, firm, or agency planning to work in waters of the United States must first obtain a permit from the Army Corps of Engineers. In Oregon, joint permits may be issued with the Division of State Lands. The Corps is responsible for the protection and development of the nation's water resources, including navigation, flood control, energy production through hydropower management, water supply storage and recreation.

Contact: US Army Corps of Engineers-Portland District, Floodplain Information Branch
Address: P.O. Box 2946, Portland, OR 97208-2946
Phone: (503) 808-5150
Website: <http://www.nwp.usace.army.mil/>

Morrow Soil and Water Conservation District (SWCD)

The SWCD works in partnership with the Natural Resource Conservation Service to promote soil and water conservation in Morrow County. SWCD works with agricultural interests and landowners to provide information on natural resource conservation practices. The partnership blends individual member resources to offer technical and financial assistance in planning and applying natural resource conservation practices and systems. Areas of focus include: erosion management, wetlands preservation and restoration, resource inventories, watershed assessments, and conservation education.

Contact: Morrow Soil and Water Conservation District
Address: P.O. Box 127
Phone: 541-676-5452
Fax: 541-676-9624
Website: <http://www.oacd.org/districts.html#MORROW>

National Resources Conservation Service (NRCS), US Department of Agriculture (USDA)

NRCS provides a suite of federal programs designed to assist state and local governments, and landowners in mitigating the impacts of flood events. The Watershed Surveys and Planning Program and the Small Watershed Program provide technical and financial assistance to help participants solve natural resource and related economic problems on a watershed basis. The Wetlands Reserve Program and the Flood Risk Reduction Program provide financial incentives to landowners to put aside land that is either a wetland resource or experiences frequent flooding. The Emergency Watershed Protection Program (EWP) provides technical and financial assistance for clearing debris from clogged waterways, restoring vegetation, and stabilizing riverbanks. The measures taken under the EWP must be environmentally and economically sound and generally benefit more than one property.

Contact: USDA-NRCS
Address: P.O. Box 127 Heppner, OR 97836
Phone: 541-676-5021
Fax: 541-676-9624
Website: <http://www.or.nrcs.usda.gov/contact/morrow.html>

Additional Resources

The National Flood Insurance Program

The National Flood Insurance Program (NFIP) Website is a subsection of the Federal Emergency Management Agency (FEMA) site (<http://www.fema.gov>). The NFIP information is intended for both the general public and the many organizations and agencies participating in the program. It includes information about the NFIP and other flood disaster assistance available from the Federal Government. It also provides access to the newly revised NFIP booklet: Answers to Questions about the National Flood Insurance Program.

Contact: The National Flood Insurance Program
Phone: (888) FLOOD29 or (800) 427-5593
Website: <http://www.fema.gov/business/nfip/index.shtm>

The Association of State Floodplain Managers

The Association of State Floodplain Managers is an organization of professionals involved in floodplain management, flood hazard mitigation, the National Flood Insurance Program, and

flood preparedness, warning, and recovery. ASFPM fosters communication among those responsible for flood hazard activities, provides technical advice to governments and other entities about proposed actions or policies that will affect flood hazards, and encourages flood hazard research, education, and training. The ASFPM Web site includes information on how to become a member, the organization's constitution and bylaws, directories of officers and committees, a publications list, information on upcoming conferences, a history of the association, and other useful information and Internet links.

Contact: The Association of State Floodplain Managers
Address: 2809 Fish Hatchery Road, Madison, WI 53713
Phone: (608) 274-0123
Website: <http://www.floods.org>

USGS Water Resources

This web page offers current US water news; extensive current (including real-time) and historical water data; numerous fact sheets and other publications; various technical resources; descriptions of ongoing water survey programs; local water information; and connections to other sources of water information.

Contact: Department of Land Conservation and Development, Natural Hazards and Floodplains Specialist
Address: 635 Capitol Street NE, Suite 150 Salem OR 97301-2540
Phone: 503-373-0050
Fax: 503-378-5518

Contact: USGS Water Resources
Phone: (503) 251-3200
Website: <http://or.water.usgs.gov/>
Email: info-or@usgs.gov

Office of Hydrologic Development, National Weather Service

The National Weather Service's Office of Hydrologic Development (OHD) and its Hydrological Information Center offer information on floods and other aquatic disasters. This site offers current and historical data including an archive of past flood summaries, information on current hydrologic conditions, water supply outlooks, an Automated Local Flood Warning Systems Handbook, Natural Disaster Survey Reports, and other scientific publications on hydrology and flooding.

Contact: Office of Hydrologic Development, National Weather Service
Website: <http://www.nws.noaa.gov/oh/>

The Floodplain Management Association

The Floodplain Management website was established by the Floodplain Management Association (FMA) to serve the entire floodplain management community. It includes full-text articles, a calendar of upcoming events, a list of positions available, an index of publications available free or at nominal cost, a list of associations, a list of firms and consultants in floodplain management, an index of newsletters dealing with flood issues (with hypertext links if available), a section on the basics of floodplain management, a list of frequently asked questions (FAQs) about the Website, and, of course, a copious catalog of Web links.

Contact: Floodplain Managers Association
Website: <http://www.floodplain.org>
Email: admin@floodplain.org

Northwest Regional Floodplain Managers Association (NORFMA)

This site is a resource for floodplains, fisheries, and river engineering information for the Northwest. This site provides technical information, articles, and Internet links in the field of floodplain and fisheries management

Contact: Northwest Regional Floodplain Managers Association
Website: <http://www.norfma.org/>

Publications

Planning for Natural Hazards: The Oregon Technical Resource Guide, Department of Land Conservation and Development (July 2000).

Produced by the Community Planning Workshop for the Department of Land Conservation and Development, this is a natural hazards planning and mitigation resource for Oregon cities and counties. It provides hazard-specific resources and plan evaluation tools. The document was written for local government employees and officials. The Technical Resource Guide includes a natural hazards comprehensive plan review, a hazard mitigation legal issues guide, and five hazard-specific technical resource guides, including: flooding, wildfires, landslides, coastal hazards, and earthquakes. This document is available online. You can also write, call, or fax to obtain this document:

Contact: Natural Hazards Program Manager, Department of Land Conservation and Development
Address: 635 Capitol St. NE, Suite 200, Salem, OR 97301-2540
Phone: (503) 373-0050
Fax: (503) 378-6033
Website: <http://www.oregon.gov/LCD/HAZ/publications.shtml>

NFIP Community Rating System Coordinator's Manual. FEMA/NFIP. Indianapolis, IN.

This informative brochure explains how the Community Rating System works and what the benefits are to communities. It explains in detail the CRS point system, and what activities communities can pursue to earn points. These points then add up to the "rating" for the community, and flood insurance premium discounts are calculated based upon that "rating." The brochure also provides a table on the percent discount realized for each rating (1-10). Instructions on how to apply to be a CRS community are also included.

Contact: NFIP Community Rating System
Phone: (800) 480-2520 or (317) 848-2898
Website: <http://training.fema.gov/EMIWeb/CRS/> (select resources)

Floodplain Management: A Local Floodplain Administrator's Guide to the NFIP. FEMA-Region 10. Bothell, WA.

This document discusses floodplain processes and terminology. It contains floodplain management and mitigation strategies, as well as information on the NFIP, CRS, Community Assistance Visits, and floodplain development standards.

Contact: National Flood Insurance Program
Phone: (800) 480-2520
Website: http://www.oregon.gov/LCD/HAZ/docs/floods/localofficial_4th.pdf

Reducing Losses in High Risk Flood Hazard Areas: A Guidebook for Local Officials, (February 1987), FEMA-116.

This guidebook offers a table on actions that communities can take to reduce flood losses. It also offers a table with sources for floodplain mapping assistance for the various types of flooding hazards. There is information on various types of flood hazards with regard to existing mitigation efforts and options for action (policy and programs, mapping, regulatory, non-regulatory). Types of flooding which are covered include alluvial fan, areas behind levees, areas below unsafe dams, coastal flooding, flash floods, fluctuating lake level floods, ground failure triggered by earthquakes, ice jam flooding, and mudslides.

Contact: Federal Emergency Management Agency
Phone: (800) 480-2520
Website: <http://www.fema.gov/hazard/flood/pubs/lib116.shtm>

Oregon Model Flood Damage Prevention Ordinance, (January 1999), FEMA/DLCD.

This is an example of how to write an ordinance that complies with NFIP/FEMA standards. Communities can simply adopt this ordinance, word for word, filling in the blanks specific to their community or jurisdiction.

Contact: Department of Land Conservation and Development
Phone: (503) 373-0050
Website: <http://www.oregon.gov/LCD/HAZ/docs/floods/floodord.pdf>

Wildfire Resource Directory

County Resources

Contact: Heppner Rural Fire Protection District
Address: 61853 Hanna-Arbuckle Road - Heppner, OR 97836
Phone: 541-676-9771

Contact: Irrigon Rural Fire Protection District
Address: P.O. Box 647 - Irrigon, OR 97844
Phone: 541-922-3133

Fax: 541-922-2331

Contact: Boardman Rural Fire Protection District
Address: 300 SW Wilson Lane Boardman, OR 97818
Phone: 541-481-3473

Contact: Heppner Fire Department
Address: P.O. Box 743 Heppner, OR 97836
Phone: 541-676-2922

Regional Resources

Contact: Area 9 Fire Defense Board Chief
Address: Hermiston Fire and Emergency 330 S. 1st Street, Hermiston OR 97838
Phone: 541-567-8822

State Resources

Oregon Department of Consumer and Business Services

The Building Codes Division of Oregon's Department of Consumer and Business Services is responsible for administering statewide building codes. Its responsibilities include adoption of statewide construction standards that help create disaster-resistant buildings, particularly for flood, wildfire, wind, foundation stability, and seismic hazards. Information about wildfire-related building codes is found through this department.

Contact: Building Codes Division
Address: 1535 Edgewater St. NW, P.O. Box 14470, Salem, OR 97309
Phone: (503) 373-4133
Fax: (503) 378-2322
Website: <http://www.cbs.state.or.us/external/bcd>

Oregon Department of Forestry (ODF)

ODF's Fire Prevention Unit is involved in interface wildfire mitigation and provides information about Oregon's Wildfire Hazard Zones. The Protection From Fire section of the ODF website includes Oregon-specific fire protection resources. Wildfire condition reports can be accessed on the website as well. ODF's Protection from Fire Program works to do the following:

- Clarify roles of ODF, landowners, and other agencies in relation to wildland fire protection in Oregon;
- Strengthen the role of forest landowners and the forest industry in the protection system;
- Understand and respond to needs for improving forest health conditions and the role/use of prescribed fire in relation to mixed ownerships, forest fuels and insects and disease; and
- Understand and respond to needs for improving the wildland/urban interface situation.

Contact: Oregon Department of Forestry, Fire Prevention Unit
Address: 2600 State Street, Salem, Oregon 97310
Phone: (503) 945-7440
Website: http://www.oregon.gov/ODF/FIRE/fire_protection.shtml

Office of the State Fire Marshal (OSFM)

The Prevention Unit of Oregon's Office of the State Fire Marshal contains 19 Deputy State Fire Marshals located in various regions. The responsibilities of these deputies include public education for local fire districts and inspection of businesses, public assemblies, schools, daycare centers, and adult foster homes. The State Fire Marshal's Community Education Services unit works to keep Oregonians safe from fires and injury by providing them with the knowledge to protect themselves and their property.

Contact: Oregon State Fire Marshal
Address: 4760 Portland Road NE, Salem, Oregon 97305-1760
Phone: (503) 378-3473
Fax: (503) 373-1825

Website: [http://159.121.82.250/ Oregon Laws on Fire Protection:](http://159.121.82.250/Oregon%20Laws%20on%20Fire%20Protection)
http://159.121.82.250/SFM_Admin/firelaws.htm

Email: Oregon.sfm@state.or.us

Federal Resources and Programs

Federal Wildland Fire Policy, Wildland/Urban Interface Protection

This is a report describing federal policy and interface fire. Areas of needed improvement are identified and addressed through recommended goals and actions.

Website: <http://www.fs.fed.us/fire/management/policy.html>

National Fire Protection Association (NFPA)

This is the principal federal agency involved in the National Wildland/Urban Interface Fire Protection Initiative. NFPA has information on the Initiative's programs and documents. Other members of the initiative include: the National Association of State Foresters, the US Department of Agriculture Forest Service, the US Department of the Interior, and the United States Fire Administration.

Contact: Public Fire Protection Division

Address: 1 Battery March Park, P.O. Box 9101, Quincy, MA 02269-9101

Phone: (617) 770-3000

Website: www.nfpa.org

National Interagency Fire Center (NIFC)

The NIFC in Boise, Idaho is the nation's support center for wildland firefighting. Seven federal agencies work together to coordinate and support wildland fire and disaster operations. These agencies include the Bureau of Indian Affairs, Bureau of Land Management, Forest Service, Fish and Wildlife Service, National Park Service, National Weather Service, and Office of Aircraft Services.

Contact: National Interagency Fire Center

Address: 3833 S. Development Avenue, Boise, Idaho 83705-5354

Phone: (208) 387-5512

Website: <http://www.nifc.gov/>

United States Fire Administration (USFA) of the Federal Emergency Management Agency (FEMA)

As an entity of the Federal Emergency Management Agency, the mission of the USFA is to reduce life and economic losses due to fire and related emergencies through leadership, advocacy, coordination, and support.

Contact: USFA, Planning Branch, Mitigation Directorate

Address: 16825 S. Seton Ave., Emmitsburg, MD 21727

Phone: (301) 447-1000

Website: <http://www.fema.gov/hazard/wildfire/index.shtm> - Wildfire Mitigation Planning

<http://www.usfa.fema.gov/index.htm> - USFA Homepage

<http://www.usfa.fema.gov/wildfire/> - USFA Resources on Wildfire

United States Forest Service (USFS)

The USFS is a federal land management organization established to manage the nation's federally owned forests. As part of the Department of Agriculture, it provides timber for people, forage for cattle and wildlife, habitat for fish, plants, and animals, and recreation lands throughout the country.

The USFS offers a possible link from local jurisdictions to federal grant programs.

Contact: USDA Forest Service - Pacific Northwest Region
Address: 333 SW First Avenue, Portland, Oregon 97204-3440;
P.O. Box 3623, Portland, OR 97208-3623
Phone: 503-808-2468
Website: <http://www.fs.fed.us/r6/welcome.htm>

Additional Resources

FireFree Program to Promote Home Safety

In a pioneering effort to address wildfire danger in Bend, Oregon, four local agencies and a Fortune 500 corporation joined together to create "FireFree! Get In The Zone," a public education campaign designed to increase resident participation in wildfire safety and mitigate losses. Spearheaded by SAFECO Corporation, the partnership includes the Bend Fire Department, Deschutes County Rural Fire Protection District #2, Bend City Planning, and The Deschutes National Forest. The Oregon Department of Forestry and a number of local government agencies and businesses have joined the program.

Contact: FireFree
Address: 63377 Jamison St., Bend, OR 97701
Phone: (541) 318-0459
E-mail: dcrfpd2@dcrfpd2.com
Website: <http://www.firefree.org>

Firewise – The National Wildland/Urban Interface Fire program

Firewise maintains a Website designed for people who live in wildfire- prone areas, but it also can be of use to local planners and decision makers. The site offers online wildfire protection information and checklists, as well as listings of other publications, videos, and conferences.

Contact: Firewise
Address: PO Box 9101, Quincy, MA 02269-9101
Phone: (617) 984-7056
E-mail: firewise@firewise.org
Website: <http://www.firewise.org/>

Publications

National Fire Protection Association Standard 299: Protection of Life and Property from Wildfire. National Wildland/Urban Interface Fire Protection Program, (1991). National Fire Protection Association, Washington, D.C.

This document, developed by the NFPA Forest and Rural Fire Protection Committee, provides criteria for fire agencies, land use planners, architects, developers, and local governments to use in the development of areas that may be threatened by wildfire. To obtain this resource:

Contact: National Fire Protection Association Publications
Phone: (800) 344-3555
Website: <http://www.nfpa.org> or <http://www.firewise.org>

An International Collection of Wildland-Urban Interface Resource Materials (Information Report NOR-X-344). Hirsch, K., Pinedo, M., & Greenlee, J. (1996). Edmonton, Alberta: Canadian Forest Service.

This is a comprehensive bibliography of interface wildfire materials. Over 2,000 resources are included, grouped under the categories of general and technical reports, newspaper articles, and public education materials. The citation format allows the reader to obtain most items through a library or directly from the publisher. The bibliography is available in hard copy or diskette at no cost. It is also available in downloadable PDF form. To obtain this resource:

Contact: Canadian Forest Service, Northern Forestry Centre, I-Zone Series
Phone: (780) 435-7210
Website: http://www.pfc.cfs.nrcan.gc.ca/cgi-bin/bstore/catalog_e.pl?catalog=11794

Wildland/Urban Interface Fire Hazard Assessment Methodology. National Wildland/Urban Interface Fire Protection Program, (1998), NFPA, Washington, D.C. To obtain this resource:

Contact: Firewise (NFPA Public Fire Protection Division)
Phone: (617) 984-7486
Website: <http://www.firewise.org>

Fire Protection in the Wildland/Urban Interface: Everyone's Responsibility. National Wildland/Urban Interface Fire Protection Program. (1998). Washington, D.C.: Author. To obtain this resource:

Contact: Firewise (NFPA Public Fire Protection Division)
Phone: (617) 984-7486
Website: <http://www.firewise.org>

Planning for Natural Hazards: The Oregon Technical Resource Guide, Department of Land Conservation and Development (July 2000).

Produced by the Community Planning Workshop for the Department of Land Conservation and Development, this is a natural hazards planning and mitigation resource for Oregon cities and counties. It provides hazard-specific resources and plan evaluation tools. The document was written for local staffs and officials. The Technical Resource Guide includes a natural hazards comprehensive plan review, a hazard mitigation legal issues guide, and five hazard-specific technical resource guides, including: flooding, wildfires, landslides, coastal hazards, and earthquakes. This document is available online. You can also write, call, or fax to obtain this document:

Contact: Natural Hazards Program Manager
Address: 635 Capitol St. NE, Suite 200, Salem, OR 97301-2540
Phone: (503) 373-0050
Fax: (503) 378-6033
Website: <http://www.oregon.gov/LCD/HAZ/index.shtml>

Burning Questions. A Social Science Research Plan for Federal Wildland Fire Management, Machlis, G., Kaplan, A., Tuler, S., Bagby, K., and McKendry, J. (2002) National Wildfire Coordinating Group.

The plan covers a wide range of topics and questions related to the human dimensions of federal wildland fire management. Both the beneficial and harmful affects of wildland fire are considered. The plan includes research in the social sciences or anthropology, economics, geography, psychology, political science, and sociology, as well as interdisciplinary fields of research. The plan is national in scale but recognizes the importance of regional variation in wildland fire issues.

Contact: Cooperative Park Studies Unit
Address: 635 Capitol St. NE, Suite 200, Salem, OR 97301-2540
Phone: (208) 885-7054
Fax: (503) 378-6033
Website: <http://www.psu.uidaho.edu/>

Severe Weather Event Resource Directory

County Resources

Contact: Morrow County Sheriff's Office
Address: P.O. Box 622, Heppner, OR 97836
Phone: 541-676-5317
Fax: 541-676-5577
Website: <http://morrowcountyoregon.com/sheriff-dep/>

Contact: Morrow County Public Works
Address: P.O. Box 428, Lexington, OR 97839
Phone: 541-989-9500
Fax: 541-989-8352
Website: <http://www.morrowcountyoregon.com/publicworks/index.html>

State Resources

Oregon Climate Service

The Oregon Climate Service collects, manages, and maintains Oregon weather and climate data. OCS provides weather and climate information to those within and outside the state of Oregon and educates the citizens of Oregon on current and emerging climate issues. OCS also performs independent research related to weather and climate issues.

Contact: Oregon Climate Service
Address: Oregon Climate Service, Oregon State University
Strand Ag Hall Room 316, Corvallis, OR 97331-2209
Phone: (541) 737-5705
Website: <http://www.ocs.orst.edu>
Email: oregon@oce.orst.edu

Additional Resources

Public Assistance Debris Management Guide, Federal Emergency Management Agency (July 2000).

The Debris Management Guide was developed to assist local officials in planning, mobilizing, organizing, and controlling large-scale debris clearance, removal, and disposal operations. Debris management is generally associated with post-disaster recovery. While it should be compliant with local and county emergency operations plans, developing strategies to ensure strong debris management is a way to integrate debris management within mitigation activities. The Public Assistance Debris Management Guide is available in hard copy or on the FEMA website.

Contact: FEMA Distribution Center
Address: 130 228th Street, SW, Bothell, WA 98021-9796
Phone: (800) 480-2520
Fax: (425) 487-4622
Website: <http://www.fema.gov/government/grant/pa/dmgtoc.shtm>

Landslide Resource Directory

County Resources

Contact: Morrow County Sheriff's Office
Address: P.O. Box 622, Heppner, OR 97836
Phone: 541-676-5317
Fax: 541-676-5577
Website: <http://morrowcountyoregon.com/sheriff-dep/>

Contact: Morrow County Public Works
Address: P.O. Box 428, Lexington, OR 97839
Phone: 541-989-9500
Fax: 541-989-8352
Website: <http://www.morrowcountyoregon.com/publicworks/index.html>

State Resources

Oregon Department of Land Conservation and Development (DLCD)

DLCD administers the state's Land Use Planning Program. The program is based on 19 Statewide Planning Goals, including Goal 7, related to natural hazards, with flood as its major focus. DLCD serves as the federally designated agency to coordinate floodplain management in Oregon. They also conduct various landslide related mitigation activities. In order to help local governments address natural hazards effectively, DLCD provides technical assistance such as conducting workshops, reviewing local land use plan amendments, and working interactively with other agencies.

DLCD Landslide Website:

<http://www.oregon.gov/LCD/HAZ/pages/helpres.aspx#landslides>

Oregon Department of Forestry (ODF)

The mission of the Oregon Department of Forestry is to serve the people of Oregon through the protection, management, and promotion of a healthy forest environment, which will enhance Oregon's livability and economy for today and tomorrow. ODF regulates forest operations to reduce the risk of serious injury or death from rapidly moving landslides related to forest operations, and assists local governments in the

siting review of permanent dwellings on and adjacent to forestlands in further review areas.

Contact: Oregon Department of Forestry
Address: 2600 State Street, Salem OR 97310
Phone: (503) 945-7212
Website: <http://www.odf.state.or.us>

Oregon Department of Forestry Debris Flow Warning Page

The ODF debris flow warning page provides communities with up-to-date access to information regarding potential debris flows. As the lead agency, ODF is responsible for forecasting and measuring rainfall from storms that may trigger debris flows. Advisories and warnings are issued as appropriate. Information is broadcast over NOAA weather radio and on the Law Enforcement Data System. DOGAMI provides additional information on debris flows to the media that convey the information to the public. ODOT also provides warnings to motorists during periods determined to be of highest risk for rapidly moving landslides along areas on state highways with a history of being most vulnerable. Information is available on the ODF website at www.odf.state.or.us.

Oregon Department of Geology and Mineral Industries (DOGAMI)

DOGAMI is an important agency for landslide mitigation activities in Oregon. Some key functions of DOGAMI are development of geologic data, producing maps, and acting as lead regulator for mining and drilling for geological resources. The agency also provides technical resources for communities and provides public education on geologic hazards. DOGAMI provides data and geologic information to local, state, and federal natural resource agencies, industry, and private groups.

Contact: DOGAMI
Address: 800 NE Oregon Street, Suite 965, Portland, Oregon 97232
Phone: (971) 673-1555
Fax: (971) 673-1562
Website: www.oregongeology.com
Email: info@naturenw.org

Nature of the Northwest

Oregon Department of Geology and Mineral Industries and the USDA Forest Service jointly operate the Nature of the Northwest Information Center. The Center offers a selection of maps and publications from state, federal, and private agencies.

Contact: The Nature of the Northwest Information Center
Address: 800 NE Oregon Street #5, Suite 177, Portland, Oregon 97232
Phone: (503) 872- 2750
Fax: (503) 731-4066
Website: <http://www.naturenw.org>
Email: Nature.of.Northwest@state.or.us

Oregon Department of Transportation (ODOT)

ODOT provides warnings to motorists during periods determined to be of highest risk of rapidly moving landslides along areas on state highways with a history of being most

vulnerable to rapidly moving landslides. ODOT also monitors for landslide activity and responds to slide events on state highways.

Contact: ODOT Transportation Building
Address: 355 Capitol St. NE, Salem, OR 97310
Phone: (888) 275-6368
Website: <http://www.odot.state.or.us>

Portland State University, Department of Geology

Portland State University conducts research and prepares inventories and reports for communities throughout Oregon. Research and projects conducted through the Department of Geology at Portland State University include an inventory of landslides for the Portland metropolitan region after the 1996 and 1997 floods and a subsequent susceptibility report and planning document for Metro in Portland.

Contact: Portland State University, Department of Geology
Address: 17 Cramer Hall; 1721 SW Broadway, Box 751, Portland, OR 97207
Phone: (503) 725-3389
Website: <http://www.geol.pdx.edu>

Federal Resources

Natural Resource Conservation Service (NRCS)

The NRCS produces soil surveys. These may be useful to local governments who are assessing areas with potential development limitations including steep slopes and soil types. They operate many programs dealing with the protection of natural resources.

Contact: NRCS, Oregon Branch
Address: 1201 NE Lloyd Blvd, Suite 900, Portland, OR 97232
Phone: (503) 414-3200
Fax: (503) 414-3103
Website: <http://www.or.nrcs.usda.gov>

US Geological Survey, National Landslide Information Center (NLIC)

The NLIC website provides good information on the programs and resources regarding landslides. The page includes information on the National Landslide Hazards Program Information Center, a bibliography, publications, and current projects. USGS scientists are working to reduce long-term losses and casualties from landslide hazards through better understanding of the causes and mechanisms of ground failure both nationally and worldwide.

Contact: National Landslide Information Center
Phone: (800) 654-4966
Website: <http://www.usgs.gov/hazards/landslides/>

Additional Resources

Publications

Planning for Natural Hazards: The Oregon Technical Resource Guide, Department of Land Conservation and Development (July 2000).

Produced by the Community Planning Workshop for the Department of Land Conservation and Development, this is a natural hazards planning and mitigation resource for Oregon cities and counties. It provides hazard-specific resources and plan evaluation tools. The document was written for local government employees and officials. The Technical Resource Guide includes a natural hazards comprehensive plan review, a hazard mitigation legal issues guide, and five hazard-specific technical resource guides, including: flooding, wildfires, landslides, coastal hazards, and earthquakes. You can write, call, fax, or go on-line to obtain this document.

Contact: Natural Hazards Program Manager, DLCD
Address: 635 Capitol St. NE, Suite 200, Salem, OR 97301-2540
Phone: (503) 373-0050
Fax: (503) 378-6033
Website: <http://www.oregon.gov/LCD/HAZ/index.shtml>

Mileti, Dennis, Disasters by Design: A Reassessment of Natural Hazards in the United States (1999) Joseph Henry Press.

This book offers a way to view, study, and manage hazards in the United States that will help foster disaster-resilient communities, higher environmental quality, inter- and intragenerational equity, economic sustainability, and an improved quality of life. The volume provides an overview of what is known about natural hazards, recovery, and mitigation; reveals how research findings have been translated into policies and programs; and advances a sustainable hazard mitigation research agenda.

Olshansky, Robert B., Planning for Hillside Development (1996) American Planning Association.

This document describes the history, purpose, and functions of hillside development and regulation and the role of planning, and provides excerpts from hillside plans, ordinances, and guidelines from communities throughout the US.

Olshansky, Robert B. & Rogers, J. David, Unstable Ground: Landslide Policy in the United States (1987) Ecology Law Quarterly.

This is about the history and policy of landslide mitigation in the US.

Public Assistance Debris Management Guide (July 2000) Federal Emergency Management Agency

The Debris Management Guide was developed to assist local officials in planning, mobilizing, organizing, and controlling large-scale debris clearance, removal, and disposal operations. Debris management is generally associated with post-disaster recovery. While it should be compliant with local and county emergency operations plans, developing strategies to ensure strong debris management is a way to integrate debris management within mitigation activities. The Guide is available in hard copy or on the FEMA website.

Contact: FEMA Distribution Center
Address: 130 228th Street, SW, Bothell, WA 98021-9796
Phone: (800) 480-2520
Website: <http://www.fema.gov/government/grant/pa/dmgtoc.shtm>

USGS Landslide Program Brochure. National Landslide Information Center (NLIC),
United States Geologic Survey

The brochure provides good, general information in simple terminology on the importance of landslide studies and a list of databases, outreach, and exhibits maintained by the NLIC. The brochure also includes information on the types and causes of landslides, rockfalls, and flows.

Contact: USGS- MS 966, Box 25046
Address: Denver, Federal Center, Denver, CO 80225
Phone: (800) 654-4966
Web: <http://geohazards.cr.usgs.gov/>

Earthquake

County Resources

Contact: Morrow County Sheriff's Office
Address: P.O. Box 622, Heppner, OR 97836
Phone: 541-676-5317
Fax: 541-676-5577
Website: <http://morrowcountyoregon.com/sheriff-dep/>

Contact: Morrow County Public Works
Address: P.O. Box 428, Lexington, OR 97839
Phone: 541-989-9500
Fax: 541-989-8352
Website: <http://www.morrowcountyoregon.com/publicworks/index.html>

State Resources

Oregon Department of Consumer & Business Services-Building

Codes Division

The Building Codes Division (BCD) sets statewide standards for design, construction, and alteration of buildings that include resistance to seismic forces. BCD is active on several earthquake committees and funds construction related continuing education programs. BCD registers persons qualified to inspect buildings as safe or unsafe to occupy following an earthquake and works with OEM to assign inspection teams where they are needed.

Contact: Building Codes Division
Address: 1535 Edgewater St. NW, P.O. Box 14470, Salem, Oregon 97309
Phone: (503) 378-4133
Fax: (503) 378-2322
Website: <http://www.cbs.state.or.us/external/bcd/>

The Nature of the Northwest Information Center

The Nature of the Northwest Information Center is operated jointly by the Oregon Department of Geology and Mineral Industries and the USDA Forest Service. It offers

selections of maps and publications from state, federal, and private agencies. DOGAMI's earthquake hazard maps can be ordered from this site.

Address: Suite 177, 800 NE Oregon Street # 5, Portland, Oregon 97232
Phone: (503) 872-2750
Fax: (503) 731-4066
Email: Nature.of.NW@state.or.us
Website: <http://www.naturenw.org/geo-earthquakes.htm>

Federal Resources

US Geological Survey (USGS)

The USGS is an active seismic research organization that also provides funding for research. (For an example of such research, see Recommended Seismic Publications below).

Contact: USGS, National Earthquake Information Center
Address: Box 25046; DFC, MS 967; Denver, Colorado 80225
Phone: (303) 273-8500
Fax: (303) 273-8450
Website: <http://neic.usgs.gov>

Building Seismic Safety Council (BSSC)

The Building Seismic Safety Council (BSSC), established by the National Institute of Building Sciences (NIBS), deals with complex regulatory, technical, social, and economic issues and develops and promotes building earthquake risk mitigation regulatory provisions for the nation.

Address: 1090 Vermont Avenue, NW, Suite 700, Washington, DC 20005
Phone: (202) 289-7800
Fax: (202) 289-1092
Website: <http://www.bssconline.org/>

Western States Seismic Policy Council (WSSPC)

The WSSPC is a regional organization that includes representatives of the earthquake programs of thirteen states (Alaska, Arizona, California, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon Utah, Washington, and Wyoming), three U.S. territories (American Samoa, Commonwealth of the Northern Mariana Islands and Guam), one Canadian Province (British Columbia), and one Canadian Territory (Yukon). The primary aims of the organization have been: to improve public understanding of seismic risk; to improve earthquake preparedness; and, to provide a cooperative forum to enhance transfer of mitigation technologies at the local, state, interstate, and national levels.

The mission of the Council is to provide a forum to advance earthquake hazard reduction programs throughout the western region and to develop, recommend, and present seismic policies and programs through information exchange, research and education.

Contact: WSSPC, Executive Director

Address: 121 Second Street, 4th Floor, San Francisco, CA 94105
Phone: (415) 974-6435
Fax: (415) 974-1747
Email: wsspc@wsspc.com
Website: <http://www.wsspc.org/>

Cascadia Region Earthquake Workgroup (CREW)

CREW provides information on regional earthquake hazards, facts and mitigation strategies for the home and business office. CREW is a coalition of private and public representatives working together to improve the ability of Cascadia Region communities to reduce the effects of earthquake events. Members are from Oregon, Washington, California, and British Columbia. Goals are to:

- Promote efforts to reduce the loss of life and property.
- Conduct education efforts to motivate key decision makers to reduce risks associated with earthquakes.
- Foster productive linkages between scientists, critical infrastructure providers, businesses and governmental agencies in order to improve the viability of communities after an earthquake.

Contact: CREW, Executive Director
Address: 1330A S. 2nd Street, #105, Mount Vernon, WA 97273
Phone: (360) 336-5494
Fax: (360) 336-2837
Website: <http://www.crew.org/>

Additional Resources

Publications

Planning for Natural Hazards: The Oregon Technical Resource Guide, Department of Land Conservation and Development (July 2000).

Produced by the Community Planning Workshop for the Department of Land Conservation and Development, this is a natural hazards planning and mitigation resource for Oregon cities and counties. It provides hazard-specific resources and plan evaluation tools. The document was written for local government employees and officials. The Technical Resource Guide includes a natural hazards comprehensive plan review, a hazard mitigation legal issues guide, and five hazard-specific technical resource guides, including: flooding, wildfires, landslides, coastal hazards, and earthquakes. You can write, call, fax, or go on-line to obtain this document.

Contact: Natural Hazards Program Manager, DLCD
Address: 635 Capitol St. NE, Suite 200, Salem, OR 97301-2540
Phone: (503) 373-0050
Fax: (503) 378-6033
Website: <http://www.oregon.gov/LCD/HAZ/index.shtml>

Environmental, Groundwater and Engineering Geology: Applications for Oregon – Earthquake Risks and Mitigation in Oregon, Yumei Wang, (1998) Oregon Department of Geology and Mineral Industries, Star Publishing.

This paper deals with earthquake risks in Oregon, what is being done today, and what policies and programs are in action to help prevent loss and damage from seismic events. This article also gives a good list of organizations that are doing work in this field within the state. This article is somewhat technical but provides vital information to communities around the state.

Contact: DOGAMI
Address: 800 NE Oregon St., Suite 965, Portland, Oregon 97232
Phone: (971) 673-1555
Fax: (971) 673-1562
Website: www.oregongeology.com

Special Paper 29: Earthquake damage in Oregon: Preliminary estimates of future earthquake losses, Yumei Wang, Oregon Department Of Geology And Mineral Industries.

Wang, a geotechnical engineer, analyzed all faults with a 10% chance of causing an earthquake in the next 50 years and projected potential damage. Wang stresses that these are preliminary figures. "There are two things we could not incorporate into this study that would significantly increase these figures. One is a tsunami. The other is an inventory of unreinforced brick or masonry buildings."

Contact: DOGAMI
Address: 800 NE Oregon St., Suite 965, Portland, Oregon 97232
Phone: (971) 673-1555
Fax: (971) 673-1562
Website: www.oregongeology.com

Land Use Planning for Earthquake Hazard Mitigation: A Handbook for Planners, Wolfe, Myer R. et. al., (1986) University of Colorado, Institute of Behavioral Science, National Science Foundation.

This handbook provides techniques that planners and others can utilize to help mitigate for seismic hazards. It provides information on the effects of earthquakes, sources on risk assessment, and effects of earthquakes on the built environment. The handbook also gives examples on application and implementation of planning techniques to be used by local communities.

Contact: Natural Hazards Research and Applications Information Center
Address: University of Colorado, 482 UCB, Boulder, CO 80309-0482
Phone: (303) 492-6818
Fax: (303) 492-2151
Website: <http://www.colorado.edu/UCB/Research/IBS/hazards>

Using Earthquake Hazard Maps: A Guide for Local Governments in the Portland Metropolitan Region; Evaluation of Earthquake Hazard Maps for the Portland Metropolitan Region Spangle Associates, (1998/1999) Urban Planning and Research, Portola Valley, California.

These two publications are useful for local governments concerned with land use in earthquake hazard areas. The proximity of Washington County to Portland and their interactive communities make these guides applicable to the County. The publications are written in clear and simplistic language and address issues such as how to apply earthquake hazard maps for land use decisions.

Contact: DOGAMI

Address: 800 NE Oregon St., Suite 965, Portland, Oregon 97232
Phone: (971) 673-1555
Fax: (971) 673-1562
Website: www.oregongeology.com

Public Assistance Debris Management Guide, Federal Emergency Management Agency (July 2000).

The Debris Management Guide was developed to assist local officials in planning, mobilizing, organizing, and controlling large-scale debris clearance, removal, and disposal operations. Debris management is generally associated with post-disaster recovery. While it should be compliant with local and county emergency operations plans, developing strategies to ensure strong debris management is a way to integrate debris management within mitigation activities. The Public Assistance Debris Management Guide is available in hard copy or on the FEMA website.

Contact: FEMA Distribution Center
Address: 130 228th Street, SW, Bothell, WA 98021-9796
Phone: (800) 480-2520
Fax: (425) 487-4622
Website: <http://www.fema.gov/government/grant/pa/dmgtoc.shtm>

Appendix B: Planning and Public Process

Natural Hazard Mitigation Plan
Steering Committee
Meeting Minutes
Heppner City Hall
October 20, 2015

Attendees:

Linda LaRue, Ione,
Karen Pettigrew, Boardman
Kim Cutsforth, Heppner
Aaron Palmquist, Irrigon
Kevin McCabe, Lexington
Janet Greenup, Morrow SWCD
Shelley Wight, Morrow County Health Department
Carla McLane, Morrow County Planning
Hank Pieper, Morrow County Planning
Lori Timmons, Morrow County Planning

Welcome and Introductions. At the beginning of the meeting, Carla welcomed the attendees and explained that there were a couple of new faces at this meeting. After a mutual re-introduction, Carla explained for Kevin McCabe and Hank Pieper the history of the PDMP/NHMP development process. An "All-hazards" Plan will be considered at the next five-year review. But the subject of this meeting is the first 2 parts of the latest update of the Plan. Because there have been no changes made, the City annexes and the appendices were not included in the packet.

Review Current Status of Plan Update. Lori Timmons walked the Committee through all of the changes of note in the first 5 sections of the Plan and the Hazard Specific Annexes. The Committee discussed the Hazard Analysis Methodology and Shelly Wight remembered working on the Matrix a few years ago. When the Planning Department updated the Hazard Analysis Matrix, the original matrix was consulted and the missing hazards were analyzed and included in the Matrix. Other revisions of the Plan were discussed including taking out the newspaper articles in the hazard specific annexes and including a reference to them in the specific hazard table in each hazard specific chapter.

The updated maps were discussed by GIS Planning Tech, Hank Pieper. The new maps are digitally prepared and include the critical facilities, and the economic, cultural and historic assets. The committee reviewed the maps and pointed out some things that needed to be edited. There was some discussion as to whether the contract post office in Lexington should be included as part of the Critical Facilities. It was decided to not include it because it is not an official Post Office.

Timing for FEMA Review: Carla discussed the timing of events for the Plan as it goes through review. The Plan will be returned to OEM for a followup review and should be ready for FEMA submission in late November, 2015. At that point, FEMA has 45 days

to review the document and we expect the Plan to be returned to the Planning Department in Mid-January 2016. If there is no further editing work to be done, we expect to have adoption by resolution in March, 2016.

The next NHMP maintenance meeting will be held in March 2016, and then again in October. This will implement the twice yearly meeting format.

Linda LaRue moved and Aaron Palmquist seconded her motion to approve the changes to the Plan as presented with the changes as discussed.



SIGN-IN SHEET
 Natural Hazards Mitigation Plan Steering Committee
 Heppner City Hall
 October 20, 2015

NAME (PLEASE PRINT)	Organization	Email
Carla McQuay	Morrow County Planning	cmclane@co.morrow.or.us
Aaron Palmquist	city of Heppner	aaron.palmquist@city.heppner.or.us
Hank Pieper	Morrow County Planning	hpieper@co.morrow.or.us
Lori Timmons	Morrow County	luised75@gmail.com
Kim Cutsforth	Heppner	heppner@centralnet.net
Alexis McCabe	Lexington	town@ss@emuel.fel.net
Linda Laffue	City of Lane	lklaffue@gmail.com
Janet Greenup	Morrow SWCO	swco.manager@centralnet.net
Shelley Wight	Morrow County Health Dept	Swight@co.morrow.or.us
Karen Pettigrew	Boardman	Kpettigrew@cityofboardman.com

Natural Hazard Mitigation Plan Update
Steering Committee
Meeting Minutes
Heppner City Hall
March 4, 2014

Attendees:

Steve Rhea
Linda LaRue, Ione
Jean Brazelle, Lexington
Karen Pettigrew, Boardman
Kim Cutsforth, Heppner
Carla McLane, Morrow County Planning
Layne Wolfmueller, Morrow County Planning
Lori Timmons

The meeting was called to order at 1:30 p.m.

Carla welcomed and attendees and thanked everyone for attending. Carla indicated to the group that this is the last meeting that was scheduled to approve the updated version of the Natural Hazard Mitigation Plan.

The first action of the Stakeholders was to formally approve the Plan name change from the "Predisaster Mitigation Plan" to the "Natural Hazard Mitigation Plan." This was done to remain consistent with other Oregon natural hazard mitigation plans. Also formally accomplished was the removal of Dave DeMayo as a Stakeholder and to add all of the City participants as Stakeholders.

The Stakeholders discussed the Plan as part of a possible "All Hazard" plan. This was brought up because during the course of the previous meeting, it was mentioned that many times a "non-natural hazard disaster may actually be caused by a natural occurrence. It was decided that this possibility could be further explored in future meetings but, as a FEMA-required activity for a specific purpose, the NHMP will be sustained as only a natural hazard mitigation plan for now. An Action Item will be added to the Plan for the purpose of further discussion.

Also discussed was the concern of fire protection on the former US Army Depot. Carla McLane informed the participants that Hermiston and Boardman are responsible at the moment for fire protection at the former US Army Depot and, as part of the formal BRAC process, fire protection will be decided upon as part of the mutual agreements. An Action Item will be added to the Plan in order to continue attention to this important subject.

The task of this meeting was to finish the review of Action Items and to complete the review of Section 5, which is the review of the Plan implementation and maintenance. The Steering Committee decided to have semi-annual meetings, once in the Spring and

once in the Fall, to discuss updates and changes to the Plan and to review Action Items. The Planning Department will be the convener of these meetings.

The Stakeholders reviewed the Action Items and discussed how they would be maintained, finished or changed, if needed. Staff recommended that the Action Items would be reviewed at each semi-annual meeting and at that time, would be dealt with as they are finished, continued, or the status of each updated as necessary.

Wrap up. The County will continue to hold meetings as outlined in the Plan. The Stakeholders gave Staff the task of finishing the edits of the Plan and sending the final draft on to FEMA when Planning Staff deems it ready for FEMA review. Carla McLane informed the Stakeholders that the next task will be the update of the Natural Hazards Element of the Comprehensive Plan. She encouraged the cities to use the language in the NHMP in updating their own Natural Hazard Elements.

The meeting was adjourned at 3:30 p.m.

Pre-Disaster Mitigation Plan
Steering Committee
Sign in Sheet

MEETING DATE: March 4, 2014 at 1:30 p.m.

LOCATION: Heppner City Hall

Name: (Please Print)	Organization: (Please Print)
Steve Rhea	Heppner Fire
Layne Wolfmueller	Morrow Co.
Jean Brazell Mayor	Lexington
Linda Larue, Mayor	Stone
Kim Cutsforth	Heppner
Aron Palmquist	Erigen
Karen Pettigrew	Boardman
Lori Timmons	Morrow County
Sandi Pulman.	Morrow County Public Works.
David P. Winters	City of Boardman
Janet Greening	Morrow SWCD
Shelley Wright	Morrow Co. Public Health



PLANNING DEPARTMENT

P. O. Box 40 • Irrigon, Oregon 97844
(541) 922-4624 or (541) 676-9061 x 5503
FAX: (541) 922-3472

**Natural Hazard Mitigation Plan (NHMP) Update
Previously Pre-Disaster Mitigation Plan (PDMP)
Steering Committee Meeting
March 4, 2014 1:30 p.m.
Heppner City Hall
Agenda**

- I. Welcome

- II. Review of Update Progress
Meetings held
Change to name of plan
Additions to Steering Committee

- III. Plan Sections and Annexes
Main Plan Components
 - Plan Sections 1 through 5
 - City Annexes
 - Hazard Annexes
 - Appendices

- IV. Action Items
Current Action Items
New Action Items
Prioritization

- V. Plan monitoring, evaluating, and updating

- VI. Next Meeting Date

- VII. Adjourn

Natural Hazard Mitigation Plan Update
Irrigon Meeting
Meeting Notes
Irrigon City Hall
February 18, 2014

This meeting was held as part of Irrigon's regularly-planned City Hall meeting on February 18th.

Carla McLane thanked the City of Irrigon for having the NHMP update as part of their agenda. She explained what the NHMP is and how it pertains to the Irrigon community. She reviewed the Plan and reminded the City that Irrigon already has an annex in the original plan. She also explained that the plan is required by FEMA but it is also non-regulatory. The update process will allow the community to take a look at their natural hazard needs and wants regarding natural hazard mitigation in Irrigon. There was a short discussion about the process of finishing the plan and that the city must adopt the updated Plan by resolution. If the City deems it necessary to update their comprehensive plan or ordinances as a result of this update, the resolution of adoption of the Natural Hazard Mitigation Plan would not have to wait on the comprehensive plan or ordinance work to be adopted. The city would, instead, utilize the action item process to move forward after the NHMP work is finished.

Lori Timmons then took over the narrative of the meeting. She covered the rest of the NHMP agenda having to do with Irrigon and how to go about accomplishing the City's update. Everyone reviewed the contents of the present Irrigon annex, starting with the Summary. Lori explained that this summary will need to be expanded to include evidence of public meetings to meet the requirement for public involvement and to have an updated section on basic data such as demographics, critical facilities and infrastructure.

Lori then guided the attendees through the previous action items of the original NHMP plan for Irrigon. She explained that they will need to be evaluated in light of any progress on the Mitigation Action Progress Report Forms, which were provided to the committee. Lori also provided new Mitigation Action Implementation Worksheets for any new action items the City would want to include in the updated Plan.

The updated Irrigon annex should also have evidence that the city took a look at the community profile and included any changes to or new information regarding community social systems, such as retirement homes, hospitals, clinics, especially those providing services to children, elderly, low income, or businesses.

The city should also take a look at the local city plans and whether or not there have been - or should be - changes to community plans in relation to hazard mitigation. These would include possible updates to the comprehensive plan, floodplain ordinances, stormwater management plans, etc.

Lori and Carla reminded the attendees that the County Planning staff will be willing to help with this project.

Planning Staff is asking Irrigon staff to be able to provide a draft annex by the end of March.

**City of Irrigon - City Council Meeting
Signature Sheet**

Date: 2-18-14

Please Print Name	Address	e-mail address - if not on file already
Andru Hermanns	275 SE 8th Street Irrigon	
Cecil G. Rock	105 N. 1st + MARIAGONA	CEILR@ROCKENTERPRISES.NET
Carla B. McNamee	Morrow County	CMB@mcnamee.com
Dor Timmons	Morrow County	dor@timmons.com
Linda Wolfmuller	Morrow County	lwf@wolfmuller.com
Janet VanDer		
PHYLAS DANIELSON	415 NE 10th	
Paula Danielson	" "	
SARAH HAWZ	116 N. W. A. Ave - IRRIGON	
Councillors	Staff:	
Daren Strong	Aron Palmquist	
Christine Sorenson	Penny Moore	
Sam Heath		
Joe Thaisen		
Margaret Anderson		
Michelle Hagen		



P. O. Box 40 • Irrigon, Oregon 97844
(541) 922-4624 or (541) 676-9061 x 5503
FAX: (541) 922-3472

Agenda Natural Hazard Mitigation Plan Irrigon Annex Portion February 18, 2014

- I. Introduction and Purpose of this Discussion.
- II. Natural Hazard Mitigation and how it affects Irrigon
 - History of problems with natural disaster events
 - Previous Mitigation work
 - Action Items from 2006 Plan
 - Provide back up power for sewage system lift stations in Irrigon
 - Provide emergency back up for the City water system in Irrigon
 - Lessen wildfire and drought impacts in Irrigon
 - Review of other Natural Hazard Risks
- III. Discussion of Hazard Events in Irrigon in the last 7 years
 - Was the infrastructure adequate?
 - Was the response by professionals and public adequate?
 - Is there a need for more training or education?
- IV. The Community Profile Review. Are there changes to or new information regarding community social systems, especially organizations providing services to children elderly low income, businesses?
- V. Local Community Plans. Has there been recent changes to community plans in relation to hazard mitigation? Are there any programs or plans that should be reviewed and updated? Specifically to:
 - Comprehensive Plan
 - Capital improvement Plan
 - Emergency Operations Plan
 - Parks and Open Space Plan
 - Stormwater Management Plan
 - Floodplain Ordinances
- VI. Action Items - discussion as to keep, add to or remove Action Items in Plan.
- VI. Wrap up

Natural Hazard Mitigation Plan Update
Ione Meeting
Meeting Notes
Ione City Hall
February 13, 2014

This meeting was held as part of Ione's regularly-planned City Hall meeting on February 13th.

Carla McLane thanked the City of Ione for having the NHMP update as part of their agenda. She explained what the NHMP is and how it pertains to the Ione community. She reviewed the Plan and reminded the City that Ione already has an annex in the original plan. She also explained that the plan is required by FEMA but it is also non-regulatory. The update process will allow the community to take a look at their natural hazard needs and wants regarding natural hazard mitigation in Ione.

Lori Timmons then took over the narrative of the meeting. She covered the rest of the NHMP agenda having to do with Ione and how to go about accomplishing the City's update. Everyone reviewed the contents of the present Ione annex, starting with the Summary. Lori explained that this summary will need to be expanded to include evidence of public meetings to meet the requirement for public involvement and to have an updated section on basic data such as demographics, critical facilities and infrastructure.

Lori then guided the attendees through the previous action items of the original NHMP plan for Ione. She explained that they will need to be evaluated in light of any progress on the Mitigation Action Progress Report Forms, which were provided to the committee. Lori also provided new Mitigation Action Implementation Worksheets for any new action items the City would want to include in the updated Plan. There was some discussion about flooding and where the flood waters usually originate. It was confirmed that the County installed a larger culvert under the County road that was mentioned in the action item.

The updated Ione annex should also have evidence that the city took a look at the community profile and included any changes to or new information regarding community social systems, such as retirement homes, hospitals, clinics, especially those providing services to children, elderly, low income, or businesses.

The city should also take a look at the local city plans and ordinances and whether or not there have been - or should be - changes to community plans in relation to hazard mitigation. These would include possible updates to the comprehensive plan, floodplain ordinances, stormwater management plans, etc.

Lori and Carla reminded the attendees that the County Planning staff will be willing to help with this project.

Planning Staff is asking Ione staff to be able to provide a draft annex by the end of March.

Sign in Sheet
 Lone Town Hall
 Pre-Disaster Mitigation Plan Meeting

MEETING DATE: February 13, 2014

LOCATION: Lone City Hall

Name: (Please Print)	Organization: (Please Print)
Jebel H. Burnett	Retired
Curtis Thompson	
Linda K. LaRue	
Deacon Heideman	Self employed
Mark Anderson	Self employed
KRIS JONES	Pioneer Memorial Clinic
Ed Briemann	Lone Fire
Virgil Morgan	Lone Fire
Layne Wolfmüller	Morrow Co.
Lari Timmons	Morrow County
Carla McLane	Morrow Co.
Kim Carter	City of Lone



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Agenda Natural Hazard Mitigation Plan Ione Annex Portion February 11, 2014

- I. Introduction and Purpose of this Discussion.
- II. Natural Hazard Mitigation and how it affects Ione
 - History of problems with natural disaster events.
 - Previous Mitigation work.
 - Action Items from 2006 Plan
 - Education/Training to meet FEMA requirements
 - Rain Event/Flood Control from Rietman and Lorraine Canyon drainage
 - Review of other Natural Hazard Risks
- III. Discussion of Hazard Events in Ione in the last 7 years
 - Was the infrastructure adequate?
 - Was the response by professionals and public adequate?
 - Is there a need for more training or education?
- IV. The Community Profile Review. Are there changes to or new information regarding community social systems, especially organizations providing services to children elderly low income, businesses?
- V. Local Community Plans. Has there been recent changes to community plans in relation to hazard mitigation? Are there any programs or plans that should be reviewed and updated? Specifically to:
 - Comprehensive Plan
 - Capital improvement Plan
 - Emergency Operations Plan
 - Parks and Open Space Plan
 - Storm water Management Plan
 - Floodplain Ordinances
- V. Action Items - discussion as to keep, add to or remove Action Items in Plan
- VI. Wrap up

Natural Hazard Mitigation Plan Update
Boardman Meeting
Meeting Notes
Boardman City Hall
February 4, 2014

This meeting was held as part of Boardman's regularly-planned City Hall meeting on February 4th.

Carla McLane thanked the City of Boardman for having the NHMP update as part of their agenda. She explained what the NHMP is and how it pertains to the Boardman community. She reviewed the Plan and reminded the City that Boardman already has an annex in the original plan. She also explained that the plan is required by FEMA but it is also non-regulatory. The update process will allow the community to take a look at their natural hazard needs and wants regarding natural hazard mitigation in Boardman. There was a short discussion about the process of finishing the plan and that the city must adopt the updated Plan by resolution. If the City deems it necessary to update their comprehensive plan or ordinances as a result of this update, the resolution of adoption of the Natural Hazard Mitigation Plan would not have to wait on the comprehensive plan or ordinance work to be adopted. The city would, instead, utilize the action item process to move forward after the NHMP work is finished.

Lori Timmons then took over the narrative of the meeting. She covered the rest of the NHMP agenda having to do with Boardman and how to go about accomplishing the City's update. Everyone reviewed the contents of the present Boardman annex, starting with the Summary. Lori explained that this summary will need to be expanded to include evidence of public meetings to meet the requirement for public involvement and to have an updated section on basic data such as demographics, critical facilities and infrastructure.

Lori then guided the attendees through the previous action items of the original NHMP plan for Boardman. She explained that they will need to be evaluated in light of any progress on the Mitigation Action Progress Report Forms, which were provided to the committee. Lori also provided new Mitigation Action Implementation Worksheets for any new action items the City would want to include in the updated Plan.

The updated Boardman annex should also have evidence that the city took a look at the community profile and included any changes to or new information regarding community social systems, such as retirement homes, hospitals, clinics, especially those providing services to children, elderly, low income, or businesses.

The city should also take a look at the local city plans and whether or not there have been - or should be - changes to community plans in relation to hazard mitigation. These would include possible updates to the comprehensive plan, floodplain ordinances, stormwater management plans, etc.

Lori and Carla reminded the attendees that the County Planning staff will be willing to help with this project.

Planning Staff is asking Boardman staff to be able to provide a draft annex by the end of March.

Boardman City Council Meeting – February 4, 2014

Councilors Present:

David Jones
Brenda Profit
Sandy Toms
Christie Perry
Neil Livingston
Art Kegler

Staff Present:

Karen Pettigrew
Lila Killingbeck
Barry Beyeler
Jackie McCauley



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Agenda
Natural Hazard Mitigation Plan
Boardman Annex Portion
February 4, 2014

- I. Introduction and Purpose of this Discussion.
- II. Natural Hazard Mitigation and how it affects Boardman
 - Action Items from 2006 Plan
 - Provide portable power backup for the sewer system;
 - Provide back up generator for water collector #2.
 - Review of other Natural Hazard Risks
- III. Discussion of Hazard Events in Boardman in the last 7 years, if any
 - Was the infrastructure adequate?
 - Was the response by professionals and public adequate?
 - Is there a need for more training or education?
- IV. The Community Profile Review. Are there changes to or new information regarding community social systems, especially organizations providing services to children elderly low income, businesses?
- V. Local Community Plans. Has there been recent changes to community plans in relation to hazard mitigation? Are there any programs or plans that should be reviewed and updated? Specifically to:
 - Comprehensive Plan
 - Capital improvement Plan
 - Emergency Operations Plan
 - Parks and Open Space Plan
 - Stormwater Management Plan
 - Floodplain Ordinances
- V. Action Items - discussion as to keep, add to or remove Action Items in Plan.
- VI. Wrap up

Natural Hazard Mitigation Plan Update
Heppner Meeting
Meeting Notes
Heppner City Hall
January 24, 2014

This meeting was held as part of Heppner's regularly-planned City Hall meeting on January 24th.

Carla McLane thanked the City of Heppner for having the NHMP update as part of their agenda. She explained what the NHMP is and how it pertains to the Heppner community. She reviewed the Plan and reminded the City that Heppner already has an annex in the original plan. She also explained that the plan is required by FEMA but it is also non-regulatory. The update process will allow the community to take a look at their natural hazard needs and wants regarding natural hazard mitigation in Heppner.

Lori Timmons then took over the narrative of the meeting. She covered the rest of the NHMP agenda having to do with Heppner and how to go about accomplishing the City's update. Everyone reviewed the contents of the present Heppner annex, starting with the present Summary. Lori explained that this summary will need to be expanded to include evidence of public meetings to meet the requirement for public involvement and to have an updated section on basic data such as demographics, critical facilities and infrastructure.

Lori then guided the attendees through the previous action items of the original NHMP plan for Heppner. She explained that they will need to be evaluated in light of any progress on the Mitigation Action Progress Report Forms, which were provided to the committee. Lori also provided new Mitigation Action Implementation Worksheets for any new action items the City would want to include in the updated Plan.

The updated Heppner annex should also have evidence that the city took a look at the community profile and included any changes to or new information regarding community social systems, such as retirement homes, hospitals, clinics, especially those providing services to children, elderly, low income, or businesses.

The city should also take a look at the local city plans and whether or not there have been - or should be - changes to community plans in relation to hazard mitigation. These would include possible updates to the comprehensive plan, floodplain ordinances, stormwater management plans, etc.

Lori and Carla reminded the attendees that the County Planning staff will be willing to help with this project.

Planning Staff is asking Heppner staff to be able to provide a draft annex by the end of March.



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Agenda
Natural Hazard Mitigation Plan
Heppner Annex Portion
January 24, 2014

- I. Introduction and Purpose of this Discussion.
- II. Natural Hazard Mitigation and how it affects Heppner
 - History of flooding
 - Previous Mitigation work
 - Willow Creek Dam
 - Heppner Flash Flood Emergency Plan
 - Flash Flood Exercise (last conducted July 18, 2006?)
 - Action Items from 2006 Plan
 - Continuing Public Awareness Campaigns about Natural Hazard Mitigation
 - Recruitment and Training of Red Cross Volunteers
 - Improve Emergency Communications Systems in the Willow Creek Valley
 - Review of other Natural Hazard Risks
- III. Discussion of Hazard Events in Heppner in the last 7 years
 - Was the infrastructure adequate?
 - Was the response by professionals and public adequate?
 - Is there a need for more training or education?
- IV. The Community Profile Review. Are there changes to or new information regarding community social systems, especially organizations providing services to children elderly low income, businesses?
- V. Local Community Plans. Has there been recent changes to community plans in relation to hazard mitigation? Are there any programs or plans that should be reviewed and updated? Specifically to:
 - Comprehensive Plan
 - Capital improvement Plan
 - Emergency Operations Plan
 - Parks and Open Space Plan
 - Stormwater Management Plan
 - Floodplain Ordinances
- V. Action Items - discussion as to keep, add to or remove Action Items in Plan.
- VI. Wrap up

Pre-disaster Mitigation Plan Update
Town of Lexington Outreach Meeting
Meeting Notes
Lexington Town Hall
January 14, 2014

Attendees: Jean Brazell, Mayor; Beverly Steagall, Councilor; Billee Owen, Councilor; Will Lemmon, Councilor; Deanna Gurinko, Recorder; Jonathan Shaw, Lexington Public Works Director; Charlie Sumner, Lexington Fire Chief; Carla McLane, Layne Wolfmueeller and Lori Timmons, Morrow County Planning;

The meeting was called to order at 6:30 p.m.

Morrow County Planning Director Carla McLane started the meeting by giving the group the background information to the current non-regulatory FEMA required Pre-Disaster Mitigation Plan (PDMP), explaining what the plan is for, and why we need to have an updated plan. The Town of Lexington's provided packet contained; the city letter, which informs each city about the legal requirements and process involved in the update of Morrow County's PDMP, the town's adopted Annex portion and the portion which the town adopted after the PDMP had been adopted by the County.

Contract Planner Lori Timmons started off discussing the mitigation work which had been completed such as the movement of the Town Hall and Fire Station out of the floodplain and rebuilt on higher ground. Ms. Timmons also asked the Lexington representatives if the Emergency Notification System had ever been put into place. The Mayor and Councilors said that it had been started but not followed up on. Ms. Timmons said that the point of this conversation tonight is to think about the actions items and determine what the next steps are for those action items; whether they have been completed and how, not completed but should stay on the list, not completed and need to be taken off the list, or any new action items.

Ms. Timmons then went through the list of action items from the current 2006 plan to see where they might land in the new plan.

- *Develop flood control system between Clay Street and F Street.* Action item not completed.
- *Establish emergency evacuation location of the Town Office.* Action item has been completed since the Town Hall is no longer in the floodplain.
- *Install Alarm for the water supply system.* The alarm has been installed but is not yet operational.
- *Keep Willow Creek Channel and Blackhorse Channel clear of weeds and debris. Maintain strength and height of ditch sides ("dike") on Blackhorse flow way.* This action item has been a work in progress.
- *Relocate Town Hall and Fire Department.* This action item has been accomplished.
- *Obtain Emergency Generators.*
- *Develop Emergency Notification System.* The town is still working on this one.
- *Obtain Back-up water well.*
- *Obtain Technical Assistance in order to update the Hazards Section of Town Comprehensive Plan and Zoning Ordinance.* This action item is still in progress, some work was probably done back when the last plan was written.

- *Improve Drainage on C Street.* This item is a work in progress.
- *Improve Drainage on Town Streets.*

New action items discussed were:

- Conversation between the Army Corps of Engineers, the community and the irrigation water users to discuss flood events and channel clearing maintenance.
- There was also discussion around the status of a dilapidated dike on Blackhorse or if there were any easements or if any one knew who the maintenance of it falls to. The County was unaware of any FEMA dike, but this dike may be one constructed by a farmer or adjoining property owner. A member of the audience said that the dike has been around since the late 1940's and may pre-date FEMA.
- A secondary action item might be whether the community wants it to be a dike, or if needs to be removed, or what needs to be done to have one there.

Ms. Timmons also led the discussion towards the other Natural Hazard risks from the plan and if any Hazard Events had happened in the last seven years. The wildfire risk has been minimized with some fire breaks in place and there is also good support from neighboring fire districts and farmers with tractors when the events do happen. The community discussed some flooding events that had happened in the last five or six years, which were minor.

Ms. Timmons briefly discussed the Community Profile Review about changes in demographics, population and services. The Town of Lexington had also sent out its own community survey in which a high percentage of people responded. This survey can be incorporated into the plan based on the respondents answers. The Local Community Plans that need to be updated in relation to hazard mitigation were also discussed, such as Comprehensive Plan, Floodplain Ordinances, or Storm water Management Plans. Since this community doesn't have one, it would be good to think about whether that would be a good Action Plan to add.

Ms. Timmons let the Councilors and staff know what the next steps were and what needed to be done. The Lexington Annex part of the plan needs to be updated with current information and if Lexington would like to incorporate the stuff that was not adopted by the County, that would have to be updated and incorporated. Ms. Timmons left the required sheets to fill out for the evaluation of the old and new mitigation action items. These will all be incorporated into the updated plan. The Planning Department would like all these parts back by the first part of March. The next Steering Committee Meeting is March 4th, where we will be finalizing our document changes. This will then be sent to FEMA for a pre-approval, then we all adopt this plan by resolution in its entirety.

The meeting was adjourned at 7:34 p.m.

Sign in Sheet
 Lexington Town Hall
 Pre-Disaster Mitigation Plan Meeting

MEETING DATE: January 14, 2014 LOCATION: Lexington Town Hall

Name: (Please Print)	Organization: (Please Print)
Deanna Gurinko - JONATHAN SHAW	Town of Lexington - Recorder
Andrea Shaw	Town of Lexington - Maintenance & Water Dept.
Layne Wolfmuelter	Morrow County
John Edwards	SELF
Dorothy Edwards	
Shirley McCarl	
Doreen Stangell	Town of Lexington - Councilor
Billie J. Dixon	Town of Lexington - Councilor
Will Lemmon	"
Charlie Sumner	Town of Lexington "Fire Chief"



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Agenda

Natural Hazard Mitigation Plan Lexington Annex Portion January 14, 2014

- I. Introduction and Purpose of this Discussion.
- II. Natural Hazard Mitigation and how it affects Lexington
 - History of problems with natural disaster events in Lexington.
 - Previous Mitigation work
 - Relocation of Town Hall/Fire Department
 - Development of an Emergency Notification System
 - Action Items from 2006 Plan
 - Develop flood control system between Clay Street and F Street
 - Establish emergency evacuation location of the Town Office
 - Install Alarm for the water supply system
 - Keep Willow Creek Channel and Blackhorse Channel clear of weeds and debris. Maintain strength and height of ditch sides ("dike") on Blackhorse flow way.
 - Relocate Town Hall and Fire Department.
 - Obtain Emergency Generators.
 - Develop Emergency Notification System.
 - Obtain Back-up water well.
 - Obtain Technical Assistance in order to update the Hazards Section of Town Comprehensive Plan and Zoning Ordinance.
 - Improve Drainage on C Street.
 - Improve Drainage on Town Streets.
 - Review of other Natural Hazard Risks
- III. Discussion of Hazard Events in Lexington in the last 7 years
 - Was the infrastructure adequate?
 - Was the response by professionals and public adequate?
 - Is there a need for more training or education?
- IV. The Community Profile Review. Are there changes to or new information regarding community social systems, especially organizations providing services to children elderly low income, businesses?
- V. Local Community Plans. Has there been recent changes to community plans in relation to hazard mitigation? Are there any programs or plans that should be reviewed and updated? Specifically to:
 - Comprehensive Plan
 - Emergency Operations Plan
 - Stormwater Management Plan
 - Capital improvement Plan
 - Parks and Open Space Plan
 - Floodplain Ordinances
- V. Action Items - discussion as to keep, add to or remove Action Items in Plan.

Pre-disaster Mitigation Plan Update
Cities Meeting
Meeting Minutes
Boardman City Hall
December 2, 2013

Attendees: Linda LaRue, Ione; Jean Brazell, Lexington; Karen Pettigrew, Boardman; Kim Cutsforth, Heppner; Aaron Palmquist, Irrigon; Carla McLane, Layne Wolfmueller and Lori Timmons, Morrow County Planning

The meeting was called to order at 1:30 p.m.

Carla McLane welcomed the city representatives to the meeting. The letter, originally sent by Garrett with MCCOG and provided again today, informs each city about the legal requirements and process involved in the update of Morrow County's Pre-Disaster Mitigation Plan. Carla McLane reminded the representatives that each city has an annex within the Plan and each city has the responsibility to hold at least one public meeting in the update process. This is a change since the original adoption in 2006.

The city representatives discussed with County staff what must be accomplished at each city public meeting. Each city will need to provide an opportunity for public involvement, which is best accomplished at a regularly-scheduled public meeting. At the meeting, the Plan update will need to be introduced and explained. The discussion should cover the eight natural hazards identified within the plan with focus specific concerns within the city; i.e. Heppner's discussion should include the Heppner Flood Plan.

In the present Plan, Action Items were written addressing natural hazard mitigation needs for each city. It was suggested that, at the meetings, the city representatives take a look at those original Action Items and discuss whether they have been met, worked on, or still need to be addressed. Any new Action Items can be submitted for inclusion in the updated Plan, if needed.

The following comments were provided by city representatives during the meeting:

- Local electric companies should be contacted in order to address winterstorm damage to power lines. This request is in response to the problems Condon had during winter storms the last few winters.
- Freezing Fog can be a serious issue and should be discussed. Carla McLane informed the representatives that limited visibility (fog, etc.) will be dealt with in the respective windstorm and winter storm sections.

The seismic information regarding the vulnerability assessments done by DOGAMI will be provided to Irrigon and Boardman.

The next meeting times were tentatively set:

PDMP Steering Committee: March 4, 2014

Lexington: January 14th

Heppner: January 13th

Ione: February 11th

Boardman, February 4th

Irrigon, February 18th.

The meeting was adjourned at 2:25 p.m.

Pre-disaster Mitigation Plan Update
Steering Committee
Meeting Minutes
Port of Morrow Riverfront Center
November 19, 2013

Attendees:

Steve Rhea
Janet Greenup
Linda LaRue, Ione
Jean Brazelle, Lexington
Karen Pettigrew, Boardman
Steve Myren, Morrow County Undersherif and Emergency Management Lead
Dave Winters, Boardman
Carla McLane, Morrow County Planning
Layne Wolfmueller, Morrow County Planning
Lori Timmons

The meeting was called to order at 1:30 p.m.

Carla welcomed attendees and everyone re-introduced themselves. Carla indicated to the group that this is the 3rd meeting of at least 4 to approve the updated version of the Pre-disaster Mitigation Plan. So far, Sections 1 through 3 of the Plan have been worked on, and finished.

The task of this meeting was to complete the review of Section 4, which is the review of the Mission and Vision statements and the Goals and to review Action Items, review the forms, and to discuss possibilities for new Action Items for the County and cities.

First, the group reviewed the Mission and Vision statements. It was decided that, in order to avoid confusion about the Goals, a statement should be added in the introductory paragraph regarding the Goals, it should be stated that the Goals are not placed in any particular priority order. Otherwise, the Steering Committee chose to leave the Goals as they were.

The Committee took a look at the Action Item forms used in the last PDMP go around. They were not interactive, that is, they were all filled out by hand at that time. It was discussed whether we could find some interactive forms. Carla encouraged each committee member to consider possible action item additions to the Plan considering the hazards listed in the books and the relative risks and hazards in their area of responsibility. It was agreed that the County would meet with each member to gather and discuss mitigation strategies and to identify new mitigation action items, if any.

The Committee Members representing the incorporated areas, Lexington, Heppner, Ione, Irrigon, and Boardman will also meet separately as part of the County's PDMP assistance. At this meeting, scheduled for December 2nd, will be to cover any new

action items and issues regarding the city/town annexes.

Steve Rhea will be the lead in the update of the Morrow County Wildfire Protection Plan. He discussed some of the deficiencies of the Plan and the need for review of residential code updates for dwellings in the forest areas. We need to make sure the code is as protective as possible, especially in the Blake Ranch and Penland areas.

The State has requirements for meeting fire codes in forest areas in a re-sale situation. This is based on the 2001 Forest Enhancement Act. It forces landowners to make improvements before re-sale. The committee discussed what entity is supposed to enforce this rule - which was deemed to be the County.

Dave Winters of Boardman noted that there are not many natural hazard risks in Boardman but they do have concerns regarding non-natural hazards due to the proximity of the Port. Carla indicated that there should be a better acknowledgment in the PDMP for existing plans in the County for cross-reference purposes.

Karen Pettigrew noted that the Plan should contain an administrative chain of command in case an administrative head is not available in a natural disaster.

Wrap up. The County will continue to hold meetings to continue the update process. The next meeting will be on December 2nd in Boardman to assist the cities PDMP process. Also the County will meet with Public Works and other natural resource interests, and will hold a meeting with the fire interests, probably in early January. The next Steering Committee meeting will be held in early March of 2014. At that time it will be expected to go through a prioritization process with the Action Items, both outstanding and new. The Committee will also need to discuss how, when, and by whom the updated plan will be monitored, evaluated, and updated. Part of this discussion will be how the Plan's strategies will be incorporated into existing plans and programs.

The meeting was adjourned at 3:30 p.m.

Pre-Disaster Mitigation Plan
Steering Committee
Sign in Sheet

MEETING DATE: November 19, 2013 at 1:30 p.m.

LOCATION: Port of Morrow Riverfront Center

Name: (Please Print)	Organization: (Please Print)
Steve Rhea	Heppner Fire
Janet Greening	Morrow SWCD
Linda Lathum	City of Ione
Jean Brazell	Town of Lexington
Steve Myren	Morrow County Emergency Management
Dawe Winters	City of Boardman
Karen Pettigrew	
Layne Wolfmuller	
Cori Timmons	



PLANNING DEPARTMENT

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**Pre-Disaster Mitigation Plan Update
Steering Committee
Meeting Agenda
Port of Morrow Riverfront Center
November 19, 2013
1:30pm to 4:30pm**

- I. Welcome and Re-Introductions
- II. Short review of work already accomplished. Review of overall project purpose, schedule and tasks.
- III. Short overview of work that still needs to be done.
- IV. Plan Section 4: Mission and Vision Statement review and stated Goals.
- V. Action Items. What they are, what they are supposed to accomplish. Hands on action item practice.
- VI. Wrap up. Short discussion of next accomplishments, meeting date, place, and possible agenda.

Thank you for your time. It is appreciated.

Pre-disaster Mitigation Plan Update - Kickoff Meeting
Steering Committee
Meeting Minutes Meeting #1
Port of Morrow Riverfront Center
February 23, 2012

Attendees

Sandi Putman, Morrow County Public Works
Steve Myren, Morrow County Sheriff's Office
Gerald Breazeale, City of Irrigon
Larry Burns, Irrigon Rural Fire Protection District
Casey Beard, Morrow County Emergency Management
Kim Carter, City of Lone
Dee Burch, Town of Lexington
Jean Brazell, Town of Lexington
Shelley Wight, Morrow County Health District
Janet Greenup, Morrow County Soil and Water District
David Winters, City of Boardman
Brian Harmon, City of Heppner
Steve Rhea, Heppner Rural Fire Protection District
Karen Pettigrew, City of Boardman
Carla McLane, Morrow County Planning Department
Layne Wolfmueller, Morrow County Planning Department
Garrett Jensen, RARE participant, Mid-Columbia Council of Governments

Introduction

The meeting was called to order at 9:30 a.m.

Carla McLane welcomed the attendees and everyone introduced themselves. Carla reviewed the work that was done on the present Pre-disaster Mitigation Plan and that it was finished and blessed by FEMA in 2006. Now we are required to update the Plan and this is the reason for our meeting today.

The update process was reviewed by Garrett Jensen and Carla McLane. Each of the seven natural hazards in the Plan will be treated to a new risk analysis based on the history or each hazard's occurrence in the County. The committee discussed whether or not any new natural hazards should be included, such as asteroids and EMP occurrences. So far those two hazards have not been included at the State level and have not been analyzed yet, so we will not be including them in the updated Plan as of yet.

The planning process and time line was discussed and it was hoped that the County would be able to utilize the full assistance of the RARE participant, Garrett Jensen, during the whole scope of the update process. The Steering Committee will be expected to meet at least 4 times to keep track and review the work of the Staff. At each meeting the public will be asked to participate and to give valuable experience and insight into the possibilities of natural hazard mitigation in the County.

Pre-disaster Mitigation Plan Update - Kickoff Meeting
Steering Committee
Meeting Minutes of Meeting #2
Port of Morrow Riverfront Center
February 23, 2012

Attendees:

Sandi Putman, Morrow County Public Works
Steve Myren, Morrow County Sheriff's Office
Gerald Breazeale, City of Irrigon
Larry Burns, Irrigon Rural Fire Protection District
Casey Beard, Morrow County Emergency Management
Kim Carter, City of Ione
Dee Burch, Town of Lexington
Jean Brazell, Town of Lexington
Shelley Wight, Morrow County Health District
Janet Greenup, Morrow County Soil and Water District
David Winters, City of Boardman
Brian Harmon, City of Heppner
Steve Rhea, Heppner Rural Fire Protection District
Karen Pettigrew, City of Boardman
Carla McLane, Morrow County Planning Department
Layne Wolfmueller, Morrow County Planning Department
Garrett Jensen, RARE participant, Mid-Columbia Council of Governments

Meeting #2.

The second meeting was called to order at 11:30 a.m.

Garrett Jensen provided the committee with a slide show that informed about the risk assessment process and the review of the hazard identification process. The maps will need to be updated if needed, and the update must address newly identified hazards and should include descriptions, where available. The update will include and describe occurrences of hazards that occurred in the last 6 years and will incorporate any new records or hazard data or new studies that describe location, extent, probability, or previous occurrences. This process will utilize resources such as the State Plan Regional Profile, local hazard analysis, and scientific reports.

The staff will also work on a review of existing vulnerability information. This review will include an update of the list of community critical/essential facilities and infrastructure. He passed out to the stakeholders a Review of Asset worksheet and an Issue Identification Worksheet. These worksheets will aid the stakeholders in clarifying and identifying what critical facilities exist in the County, and to identify new ones since the Plan was finalized in 2006.



SIGN-IN SHEET
Pre-Disaster Mitigation Plan Kickoff Meeting 1

MEETING DATE: February 23, 2012 LOCATION: Port of Morrow Riverfront Center, Boardman, Oregon

(PLEASE PRINT)

NAME	ADDRESS
Sana Delman McP	Box 429, Lexington, OR 97839 - on file
Steve Myer McSO	City of Irrigon, PO Box 428, Irrigon 97844
Suzanne Brooks	Irrigon Fire Dist. P.O. Box 645, Irrigon 97844
Lacey Beard	Morrow Co. E.M. P.O. Box 622, Heppner, OR 97839
Kim Carter City of One CenturyTel.net	City of Ione, PO Box 261, Ione, OR 97843
Dee Birch	Town of Lexington P.O. Box 416, Lex, OR 97889
Sean M. Brazell	Town of Lexington PO Box 416, Lex, OR 97839
Shelley Wright	P.O. Box 799, Heppner, OR. 97836
Janet Greenup MSWED	PO Box 107 Heppner OR 97836
David P Dinters	PO Box 229 Boardman, OR = public works Dept of Boardman
Breanna Hawkwood City of Heppner	Box 756 Heppner OR 97836 brhawkwood@centurytel.net
Steven C. Rhee	Box 1034, Heppner, OR 97836 STEVE@rcwinc.net
Karen Pettigrews	P.O. Box 289 Boardman OR K.Pettigrew@cityofboardman.com



Morrow County Planning Department

205 NE Third St • Irrigon, OR 97844

Phone: (541) 922-4624

http://morrowcountyoregon.com/?page_id=49

Meeting: Pre-Disaster Mitigation Plan (PDMP) Update: Meeting #2
Date: Thursday, February 23, 2012
Time: 11:30 a.m. – 1:30 p.m.
Location: Port of Morrow Riverfront Center
2 Marine Drive
Boardman, Oregon 97818

Meeting Agenda

- I. **Overview of Risk Assessment Process** (10 minutes)
- II. **Review of Hazard Identification** (20 minutes)
 - Update Hazards Inventory
- III. **Update Hazard Analysis Matrix** (30 Minutes)
- IV. **Relative Risk Assessment** (45 Minutes)
 - Outline potential severity/impact of identified hazards
 - Relative Risk Exercise
- V. **Review Existing Vulnerability Information** (20 Minutes)
 - Update the list of Community Critical/Essential Facilities and Infrastructure
 - Review of Asset Worksheet
- VI. **Next Steps** (10 Minutes)
 - Identify potential date(s) for the next meeting

To access OPDR information and resources visit: <http://csc.uoregon.edu/OPDR>



Morrow County Planning Department

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http://morrowcountyoregon.com/?page_id=49

Meeting: Pre-Disaster Mitigation Plan (PDMP) Update: Kickoff Meeting
Date: Thursday, February 23, 2012
Time: 9:00 – 11:00 a.m.
Location: Port of Morrow Riverfront Center
2 Marine Drive
Boardman, Oregon 97818

Meeting Agenda

- I. **Introductions and Background** (15 minutes)
 - Welcome & Introductions
 - Who is Involved & Why

- II. **Pre-Disaster Mitigation Overview/Update Process** (75 minutes)
 - Hazards Mitigation Planning Overview
 - Primary Goals/Anticipated Outcomes
 - Grant Opportunities
 - Planning Requirements
 - Plan Update Process & Timeline
 - Steering Committees & Expectations
 - Public Involvement Strategies

- III. **Review Current NHMP's Action Items** (20 Minutes)

- IV. **Questions/Comments/Other** (10 minutes)

To access OPDR information and resources visit: <http://csc.uoregon.edu/OPDR>

Morrow County Local Emergency Planning Committee
Port of Morrow Building, 2 Marine Dr. Boardman, Oregon
Nov. 15, 2011

Agenda

10:00 ~ Call the meeting to Order:

A. Motion to approve the minutes from Sept 20th meeting.

B. Introduce new Attendee/member

C. Chair report.

* Carla McClain- Morrow county Planning Director
Review the County Pre-Disaster Mitigation Plan.

* Dave Nevin- Lamb Weston
Spill reporting- LEPC contact information.

* Mike Garrett- PGE
Joint Confined Space rescue team agreement.

* Lessons learned recently at our facilities?-

* Review specific action plans for subcommittees.

D Subcommittee update report:

1 Planning-

2 Information-

3 Training-

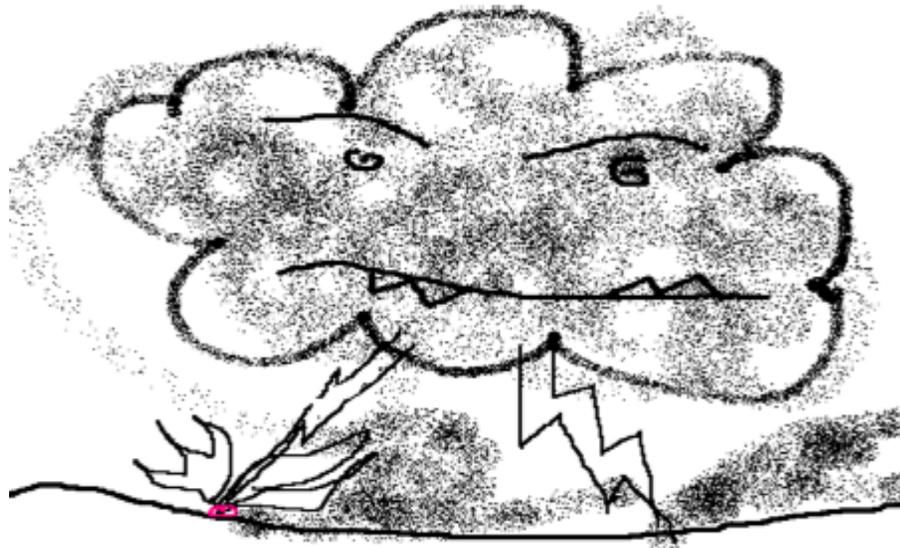
4 Emergency Response-

E. New business

F Meeting Adjourned

APPENDIX C

Mid-Columbia Regional Natural Hazard Mitigation Public Opinion Survey



Provided by the Oregon Partnership for Disaster Resilience at the University of Oregon's
Community Service Center
2011 Survey

Appendix C: Mid-Columbia Regional Natural Hazard Mitigation Public Opinion Survey

Survey Purpose and Use

The purpose of this survey was to gauge the overall perception of natural disasters, determine a baseline level of loss reduction activity for residents in the community, and assess citizen's support for different types of individual and community risk reduction activities.

Data from this survey directly informs the natural hazard planning process. Counties in the Mid-Columbia region can use this survey data to enhance action item rationale and ideas for implementation. Other community organizations can also use survey results to inform their own outreach efforts. Data from the survey provides the counties with a better understanding of desired outreach strategies (sources and formats), a baseline understanding of what people have done to prepare for natural hazards, and desired individual and community strategies for risk reduction.

Background

In addition to establishing a comprehensive community-level mitigation strategy, the Disaster Mitigation Act of 2000 (DMA2K) and the regulations contained in 44 CFR 201 require that jurisdictions maintain an approved NHMP in order to receive federal funds for mitigation projects. Development of the Natural Hazards Mitigation Plan update process for eight counties in the Mid-Columbia Gorge and surrounding regions was pursued in compliance with subsections from 44 CFR 201.6 guidelines.

Citizen involvement is a key component in the natural hazard mitigation planning process. Citizens should have the opportunity to voice their ideas, interests and concerns about the impact of natural disasters on their communities. To that end, the DMA2K requires citizen involvement in the natural hazard mitigation planning process. It states: "An open public involvement process is essential to the development of an effective plan. In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process shall include:

1. An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval
2. An opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate

development, as well as businesses, academia and other private and non-profit interests to be involved in the planning process.”

According to Bierle¹, the benefits of citizen involvement include the following: (1) educate and inform public; (2) incorporate public values into decision making; (3) substantially improve the quality of decisions; (4) increase trust in institutions; (5) reduce conflict; and (6) ensure cost effectiveness.

Methodology

In the fall of 2011, the Oregon Partnership for Disaster Resilience (OPDR) distributed a mailed survey to 7,500 random households throughout an eight county region in Northern Oregon. The counties surveyed included: Clackamas, Hood River, Gilliam, Morrow, Sherman, Umatilla, Wasco, and Wheeler. OPDR developed and distributed the survey in partnership with three members of the University of Oregon’s Resource Assistance for Rural Environments (RARE) program.

Given the geographic extent of the survey area and significant county population differences in the region, OPDR stratified the survey sample across three distinct sub-regions (see Table E-1 below). To ensure a minimum number of returns in each of the counties in sub-region three, OPDR leveled the sample at 400 surveys per county (excepting Umatilla). Once OPDR determined the sample size for each county, they contracted with the Oregon Secretary of State Elections Division (OED) to randomly select names and addresses from state voter rolls. Table E-1 shows the survey sample size by sub-region.

¹ Bierle, T. 1999. “Using social goals to evaluate public participation in environmental decisions.” *Policy Studies Review*. 16(3/4), 75-103.

Table E-1: Survey Sample Size

County	Population '09	Pop as percent of subregion	Survey sample size by county
Subregion 1 - West			
Clackamas	379,845	100%	2,500
Subregion 2 - Gorge			
Hood River	21,725	47%	1,200
Wasco	24,230	53%	1,300
Subtotal	45,955	100%	2,500
Subregion 3 - East			
Sherman*	1,830	2%	400
Gilliam*	1,885	2%	400
Wheeler*	1,585	2%	400
Morrow	12,540	14%	400
Umatilla	72,430	80%	900
Subtotal	90,270	100%	2,500
Combined Total	516,070		7,500

Source: 2011 NHMP Public Opinion Survey

*Indicates that OPDR modified the sample size in these counties in an attempt to ensure a minimum number of survey returns.

Each mailed survey packet contained: (1) a cover letter that explained the purpose of the survey and described the survey incentives; (2) a copy of the survey; (3) a survey participation card; and (4) a postage-paid envelope in which to return the completed survey and participation card.

The survey consisted of 24 questions divided into four sections: natural hazard information; community vulnerabilities and hazard mitigation strategies; mitigation and preparedness activities in your household; and general household information. OPDR and RARE designed the survey to determine public perceptions and opinions regarding natural hazards. Questions also focused on the methods and techniques survey respondents prefer to use in reducing the risks and losses associated with natural hazards.

The survey participation card asked survey recipients to enter the amount of time it took them to complete the survey. It also functioned as a voluntary entry form into a drawing for an assortment of household preparedness items. The drawing provided participants an incentive for completing the survey and expressed that it was not required, but rather encouraged, that they complete it. One winner from each of the eight participating counties was chosen at random by the OPDR office.

Ten days before the survey deadline, OPDR sent a reminder postcard to each household urging them to complete the survey and return it as soon as possible. Of the 7,500 surveys sent, 733 were returned undeliverable for a final sample size of 6,767. OPDR received 951 completed surveys for a 14-percent overall survey response rate.

A key concern of organizations that conduct surveys is statistical validity. If one were to assume that the sample was perfectly random *and* that there was no response bias, then the survey would have a margin of error of ± 5 -percent at the 95-percent confidence level. In simple terms, this means that if a survey were conducted 100 times, the results would end up within ± 5 -percent of those presented in this report.

One limitation of the study's methodology is potential non-response bias from the mailed survey. The survey results represent only those households where residents are registered to vote. There could also be a bias of answers based on which residents are renters compared to owners. Despite these areas of potential response bias, the intent of this survey was not to be statistically valid but instead to gain the perspective and opinions of resident's regarding natural hazards in the region. Our assessment is that the results reflect a range attitudes and opinions of residents throughout the eight surveyed counties

Survey Results

This section presents the compiled data and analysis for the 2011 Mid-Columbia Region Natural Hazard Mitigation Public Opinion Survey. We provide a copy of the survey instrument as Attachment A of this report; raw data is provided in Attachment B.

Natural Hazard Information

This section reports the experiences of survey respondents involving natural hazards, and their exposure to preparedness information.

The survey results indicate that about 28-percent of the respondents or someone in their household has personally experienced natural disasters in the past five years, or since they have lived in the community in which they currently reside (see Table E-2 below).

Table E-2: Direct Experience with Natural Disasters in Respondent County

Answer	Percent	Number
Yes	28%	249
No	72%	656
Q-1 total	100%	905

Source: 2011 NHMP Public Opinion Survey

Of those respondents who have experienced a natural disaster in the last five years, 51-percent experienced windstorms, 49-percent experienced wildfire, 38-percent experienced severe winter storms, and 19-percent experienced flood. Table E-3 illustrates the disasters experienced in the past five years in the Mid-Columbia region.

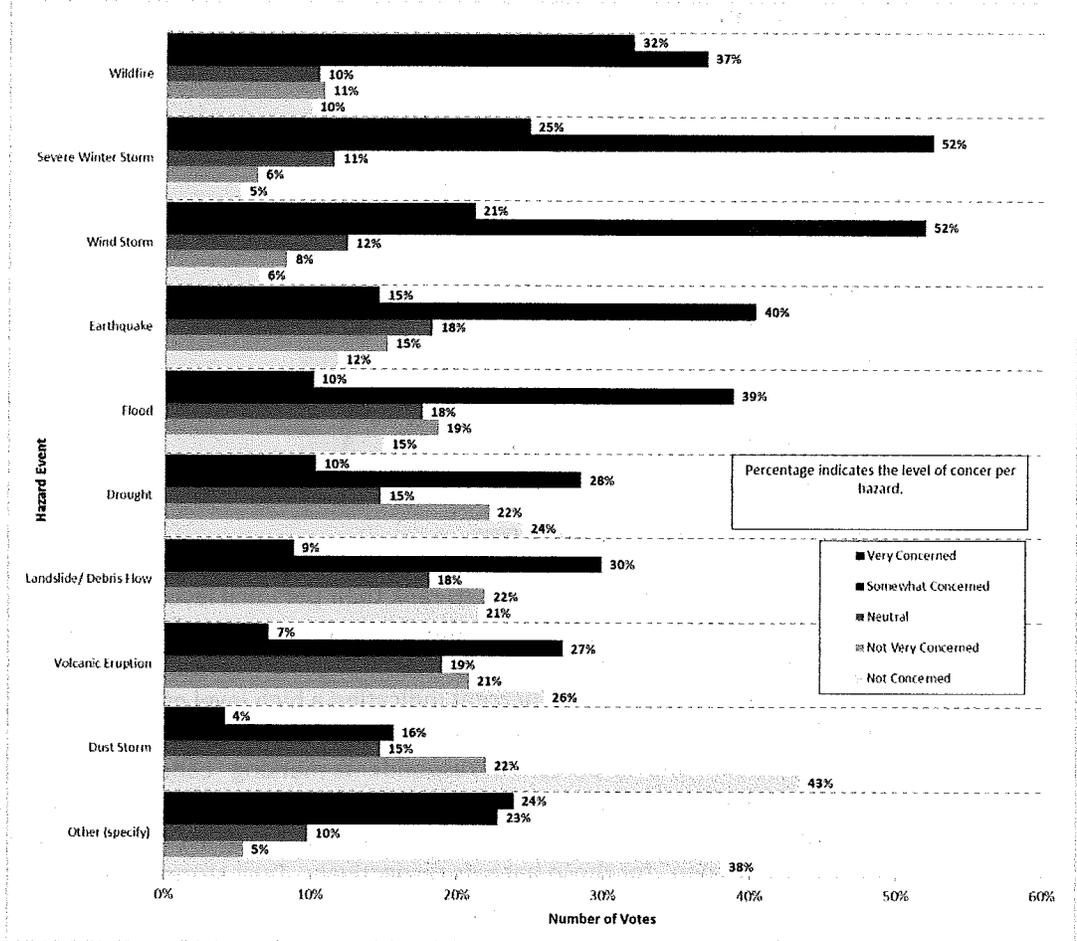
Table E-3: Type of Natural Disaster Experienced in Past Five Years

Hazard	Percent	Number
Windstorm	51%	126
Wildfire	49%	121
Severe Winter Storm	38%	94
Flood	19%	48
Drought	11%	27
Dust Storm	7%	17
Landslide/Debris Flow	7%	17
Earthquake	5%	13
Other	4%	10
Volcanic Eruption	1%	3
Q-1 "yes" answers	100%	249

Source: 2011 NHMP Public Opinion Survey

The survey also asked respondents to rank their personal level of concern for specific natural disasters affecting their community. Figure E-4 shows that more than 70-percent of respondents indicated that they are concerned or very concerned about windstorms and winter storms with nearly 60-percent indicating a high level of concern related to wildfires. A majority of respondents also demonstrated concern over earthquake and flood hazards with 55-percent and 49-percent of respondents marking "concerned" or "very concerned" for those two hazards respectively. Of lesser concern were the landslide, drought and volcano hazards with 47-, 46- and 43-percent of respondents marking "not very concerned" or "not concerned" for those hazards respectively. Dust storm is the hazard respondents are least concerned about with roughly 65-percent of respondents marking the "not very concerned" or "not concerned" choices. Figure E-1 summarizes respondent answers by hazard.

Figure E-1: Level of Concern About Natural Disasters Affecting Respondent County



Source: 2011 NHMP Public Opinion Survey

Next, the survey asked if survey recipients had received information about how to increase the safety of their households and homes from natural hazards. Table E-4 shows that over half (53-percent) of respondents indicated that they have received information regarding home and family safety from natural disasters at some time in the past.

Table E-4: Respondents Who Have Received Information Concerning Natural Disaster Home Safety

Answer	Percent	Number
Yes	53%	489
No	47%	438
Q-3 total	100%	927

Source: 2011 NHMP Public Opinion Survey

Of respondents who had received information, 27-percent received the information within the last six months and 20-percent received information six months to one year ago (see Table E-5). This suggests that, while outreach is occurring, it is reaching fewer than half of

the households in the Mid-Columbia region and surrounding areas, and that many of the households have not received any information in over a year.

Table E-5: Most Recent Date of Contact for Information Concerning Natural Disaster Home Safety

Answer	Percent	Number
Within last 6 months	27%	131
Between 6-12 months	20%	99
Between 1-2 years	22%	107
Between 2-5 years	15%	75
5 years or more	11%	55
Q-3 "yes" answers	100%	489

Source: 2011 NHMP Public Opinion Survey

Of the respondents who received information on natural hazard preparedness, the news media (36-percent) and government agencies (18-percent) were cited most often as being the source of the information. Table E-6 shows the sources most respondents last received information from. Note that while the question directed respondents to check only one answer, a number of respondents selected more than one choice. Therefore, readers should use some caution when interpreting these results.

Table E-6: Most Recent Provider of Natural Disaster Home Safety Information

Answer	Percent	Number
News Media	36%	174
Government Agency	18%	86
Other	15%	74
Not Sure	14%	68
Utility Company	8%	38
American Red Cross	6%	29
Neighbor/friend/family	5%	25
Insurance Agent/Company	5%	24
Other non-profit org.	4%	17
Social media (e.g. Facebook)	1%	4
Univ./research facility	0%	2
Elected official	0%	0
Q-4 total	111%	489

Source: 2011 NHMP Public Opinion Survey

Note: Total percentage exceeds 100% because some respondents chose more than one category.

Survey respondents provided an interesting contrast between the sources that they had recently received information from, and those that they perceived to be the most trustworthy. While only six-percent of respondents said they last received information from the American Red Cross, more respondents chose the American Red Cross as the most

trusted source of information than any other option. The second and third most trusted sources cited by respondents were “utility company” and “government agency”. “Elected Official” and “Social Media” received the lowest number of responses. Table E-7 shows the sources respondents trust the most for providing this information.

Table E-7: Most Trusted Providers of Information for Natural Disaster Home Safety

Answer	Number
American Red Cross	359
Utility Company	313
Government Agency	312
Univ./research facility	242
News Media	221
Insurance Agent/Company	186
Neighbor/friend/family	166
Not Sure	97
Other non-profit org.	93
Other	78
Elected official	14
Social media (e.g. Facebook)	9
Q-5 total	2,090

Source: 2011 NHMP Public Opinion Survey

Note: Respondents could check up to three information providers

When asked what the most effective way was to receive information, respondents indicated that television news (440 responses), newspaper stories (331 responses), and mail (315 responses) were the most effective. Interestingly, various types of advertisement (televisions, radio, billboards, newspaper) all received relatively low responses. Table E-8 shows the effectiveness rating of information dissemination methods expressed by survey respondents.

Table E-8: Most Effective Method for Respondents to Receive Information Concerning Natural Disaster-Related Home Safety

Answer	Number
Television news	440
Newspaper stories	331
Mail	315
Fire Department/Rescue	245
Radio news	227
Fact sheet/brochure	224
Email newsletters	220
Online news outlets	126
Public workshops/meetings	121
University or research institution	87
Schools	72
Television ads	56
Books	50
Social media (e.g. Facebook)	38
Magazine	34
Radio ads	33
Other	33
Outdoor ads (e.g. billboards, etc.)	32
Newspaper ads	26
Chamber of Commerce	21
Q-6 total	2,731

Source: 2011 NHMP Public Opinion Survey

An overwhelming majority of survey respondents (87-percent of those who answered Question 7) indicated that they were not aware of their county's natural hazards mitigation plan prior to receiving the survey. This suggests the need for increases in or changes to local NHMP education and outreach programs.

Table E-7: Respondent Knowledge/Awareness of County Natural Hazards Mitigation Plan

Answer	Percent	Number
Yes	13%	124
No	87%	814
Q-7 total	100%	938

Source: 2011 NHMP Public Opinion Survey

Consistent with the responses displayed in Table E-7, only 12-percent of respondents claimed to be aware, prior to the survey, that FEMA requires their county to update the NHMP every five years in order to be eligible for federal pre- and post-disaster hazard mitigation funds.

Table E-8: Respondent Awareness of FEMA Requirements for Five Year NHMP Update to Receive Hazard Mitigation Funding

Answer	Percent	Number
Yes	12%	110
No	88%	827
Q-8 total	100%	938

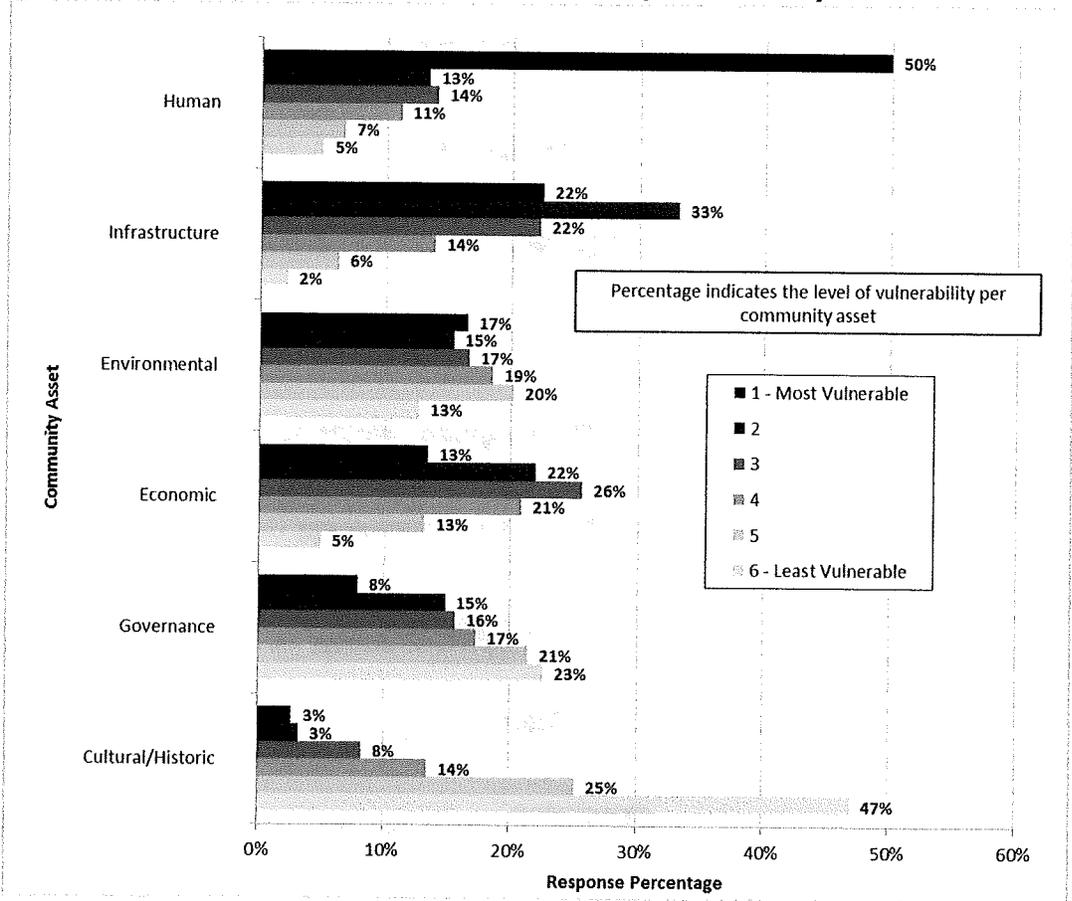
Source: 2011 NHMP Public Opinion Survey

Community Vulnerabilities and Hazard Mitigation Strategies

This section outlines the assets that survey respondents felt would be vulnerable to natural hazards in the region. The section also describes citizens' priorities for planning for natural hazards and the community-wide strategies respondents support.

The survey asked respondents to rank categories of community assets in terms of their vulnerability. These questions were intended to help the Mid-Columbia region and surrounding communities determine citizen priorities when planning for natural hazards, by comparing the level of importance that they attach to specific community assets and risk reduction activities. Figure E-2 illustrates that respondents found human related assets to be by far the most vulnerable (50-percent), followed distantly by infrastructure (22-percent). Survey respondents found environmental assets to be the third most vulnerable (17-percent), followed closely by economic assets (13-percent), however economic assets made up a noticeably higher proportion than environmental assets in rankings 2-4. Cultural/historic assets (three-percent) received the lowest consistent ranking in terms of vulnerability, preceded somewhat closely by governance (eight-percent).

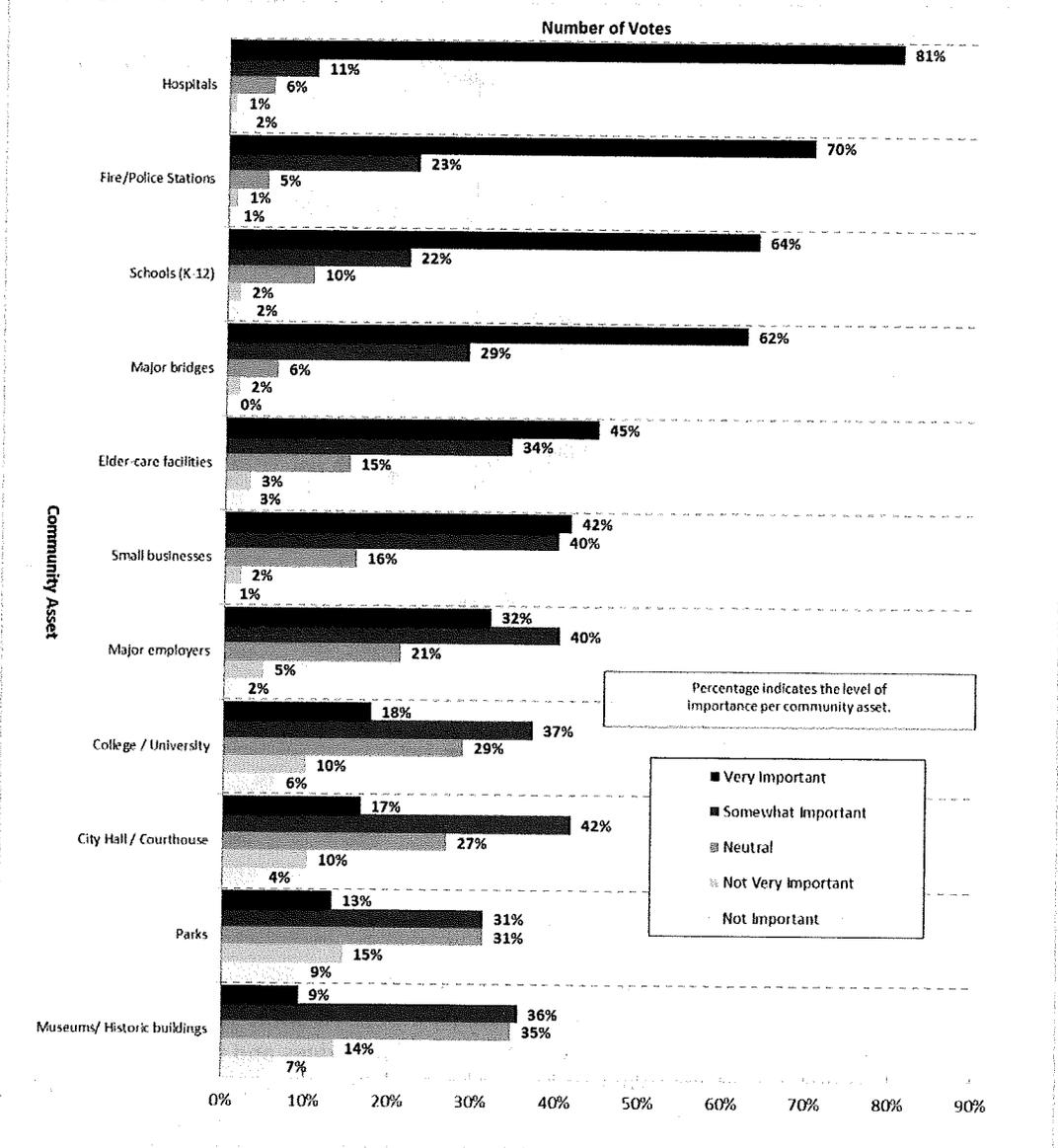
Figure E-2: Respondent Perceptions of Community Vulnerability



Source: 2011 NHMP Public Opinion Survey

Next, the survey asked respondents to indicate the importance that they attach to particular types of public and private community assets. As shown in Figure E-3, over 90-percent of respondents indicated that hospitals, major bridges and fire/police stations are very important or somewhat important to them. In addition, over 80-percent indicated that schools (K-12) and small businesses are very important or somewhat important to them. Parks were the least important to survey respondents, followed closely by museums/historical buildings, college/university, and city hall/courthouse.

Figure E-3: Respondent Community Asset Valuation



Source: 2011 NHMP Public Opinion Survey

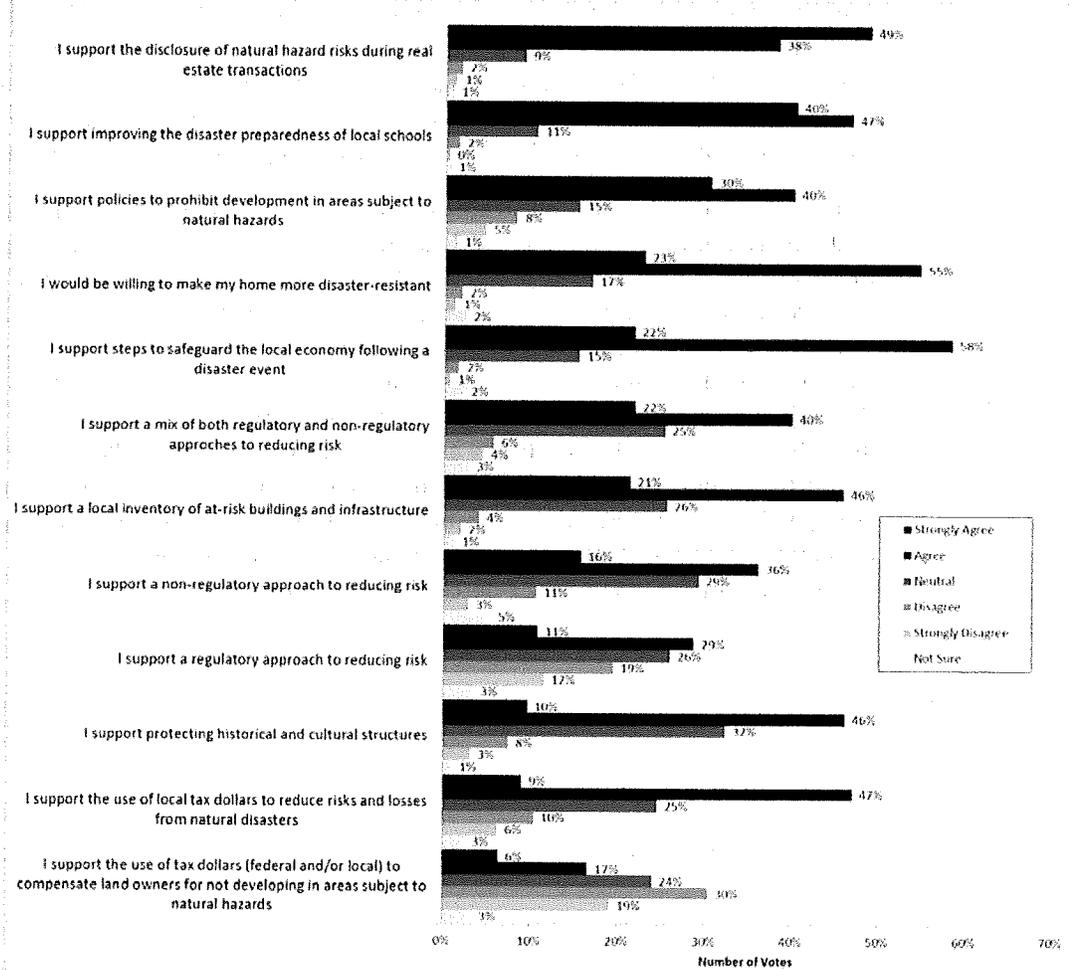
A number of activities can reduce your community’s risk from natural hazards. These activities can be both regulatory and non-regulatory. Please check the box that best represents your opinion of the following strategies to reduce the risk and loss associated with natural disasters.

To gauge attitudes toward different types of mitigation strategies, the survey asked respondents to indicate their level of support for various risk reduction activities. Figure E-4 shows that while there is general support among survey respondents about protecting assets such as schools, homes, businesses and historic or cultural assets, respondents were somewhat mixed in their agreement about how to accomplish those protections.

With respect to specific asset types, 87-percent of the respondents strongly agree or agree that they support improving the disaster preparedness of local schools, over 80-percent of respondents strongly agree or agree that they support steps to safeguard the local economy, and over 77-percent strongly agree or agree that they would be willing to make their homes more disaster-resistant. In addition, 87-percent strongly agree or agree that they support disclosure of natural hazard risks during real estate transactions.

With respect to risk reduction strategies, respondents generally appear to support a mix of regulatory, non-regulatory and tax-dollar based approaches. For example, over 50-percent of respondents support the use of tax dollars to reduce risk and losses from natural hazards and over 60-percent indicate support for a mix of regulatory and non-regulatory approaches to reducing risk. That said, respondents overwhelmingly support the use policy strategies over the use of tax supported compensation strategies when specifically used to limit development in hazard areas. As Figure E-4 shows, fewer than 25-percent of respondents indicated support when specifically asked about the use of tax dollars to compensate property owners for not developing in hazard areas (with close to 50-percent disagreeing or strongly disagreeing with a compensations approach) while 70-percent of respondents indicated general or strong support for policies that prohibit development in areas subject to natural hazards (with only 13-percent in disagreement).

Figure E-4: Respondent Preferences for Community Risk Reduction Activities

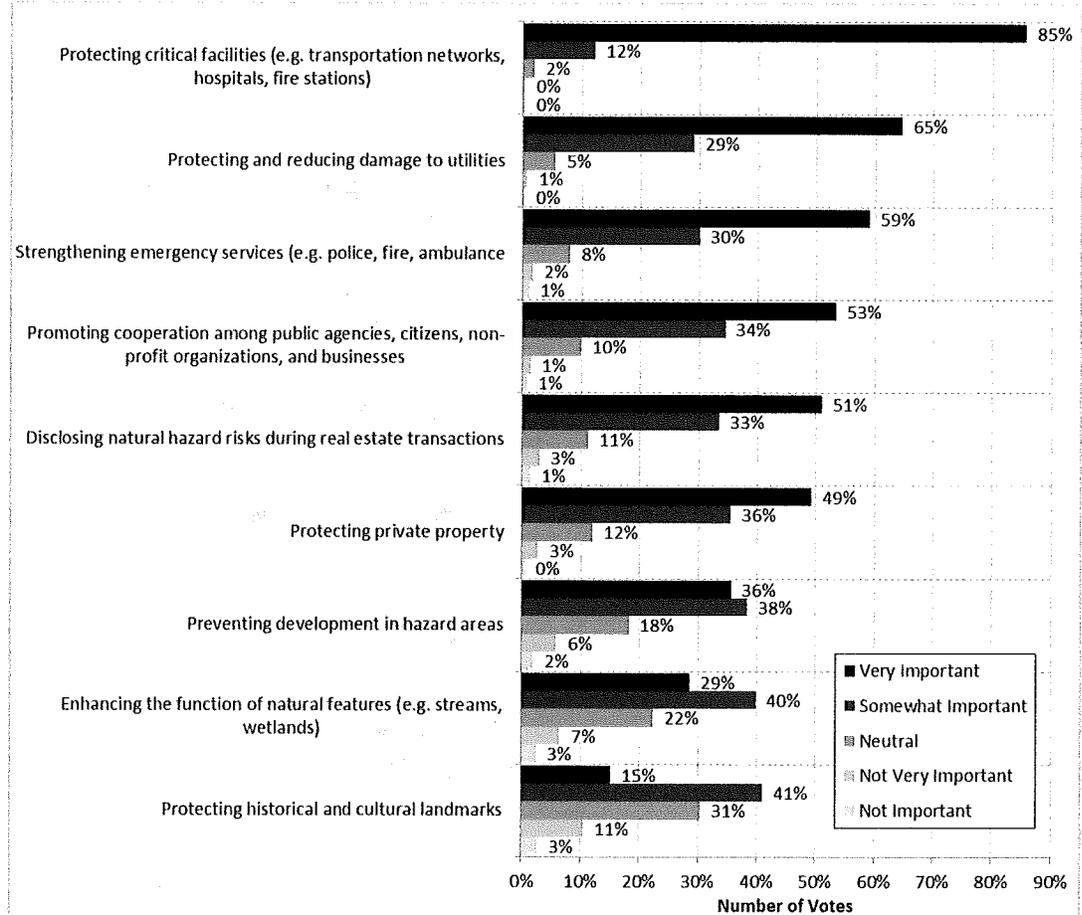


Source: 2011 NHMP Public Opinion Survey

The survey then asked respondents to indicate the level of importance they would place on a number of policies and priorities within their communities. The protection of critical facilities (e.g. transportation networks, hospitals, fire stations) received the strongest level of support with close to 100-percent of respondents finding it to be important or very important. Similarly, over 90-percent of survey respondents found protecting and reducing damage to utilities to be important or very important, with just under 90-percent who found strengthening emergency services (e.g. police, fire, ambulance) to be worthy of the same designation.

Roughly 50-percent of survey respondents felt that protecting private property and disclosing natural hazard risks during real estate transactions was important, as was promoting cooperation among public agencies, citizens, non-profit organizations, and businesses. Protecting historical and cultural landmarks was the lowest priority for survey respondents, followed by enhancing the function of natural features (e.g. streams, wetlands), and preventing development in hazard areas. Figure E-5 summarizes the results for priorities regarding planning for natural hazards in the region.

Figure E-5: Respondent Natural Hazard Planning Priorities



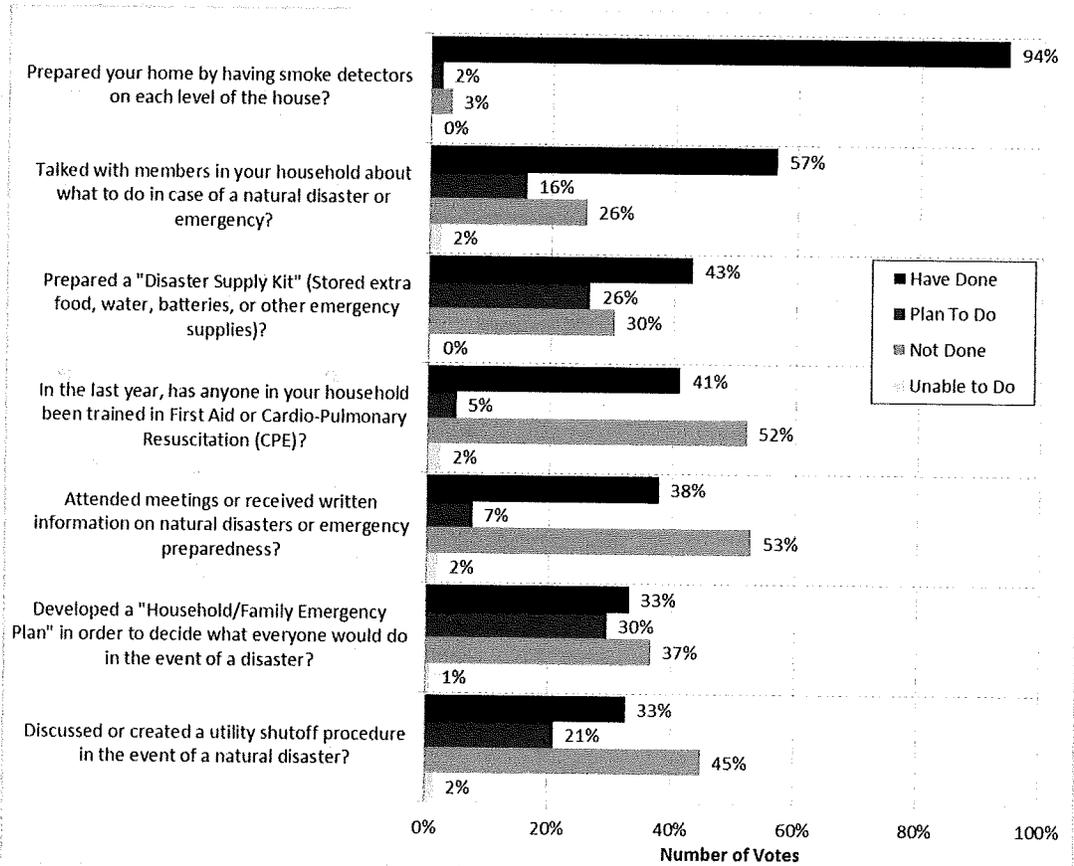
Source: 2011 NHMP Public Opinion Survey

Mitigation and Preparedness Activities in your Household

This section provides an overview of household level natural hazard mitigation and preparedness activities in the Mid-Columbia region.

Over 56-percent percent of respondents claimed to have talked with members of their households about what to do in the case of a natural disaster or emergency. In addition, 43-percent had prepared a "Disaster Supply Kit" which entails storing extra food, water, and other emergency supplies, while 41-percent were trained in first aid or CPR during the past year. Nearly 95-percent of respondents had placed smoke detectors on every level of the home while more than a third of respondents claimed to have attended meetings or received information on natural disasters or emergency preparedness, developed a "Household/Family Emergency Plan," and/or discussed/created a utility shutoff procedure in the event of a natural disaster. Figure E-5 summarizes all of the activities that respondents indicated they have done, plan to do, have not done, or were unable to do to prepare for natural disasters.

Figure E-5: Activities that Respondents Have Done, Plan to Do, Have Not Done, or are Unable to Do



Source: 2011 NHMP Public Opinion Survey

General Household Information

Demographic questions provide a statistical overview of the characteristics of the respondents. This section asked respondents about their age and gender, level of education, median income, race, ethnicity, and length of residence in the state of Oregon.

AGE AND GENDER

Table E-9 shows the age range of survey respondents. The median age of survey respondents was 55-64 years old.

Table E-9: Age of Survey Respondents

Age	Percent	Number
<19	1%	5
20-24	2%	18
25-29	2%	19
30-34	3%	23
35-39	5%	43
40-44	6%	56
45-49	7%	65
50-54	12%	111
55-59	14%	127
60-64	15%	141
65-69	13%	121
70-74	8%	69
75-79	5%	47
80+	8%	73
Q-14 total	100%	918

Source: 2011 NHMP Public Opinion Survey

Table E-10 displays the gender of survey respondents, where women accounted for 54-percent of the sample.

Table E-10: Gender of Survey Respondents

Gender	Percent	Number
Female	46%	428
Male	54%	502
Q-15 total	100%	930

Source: 2011 NHMP Public Opinion Survey

LEVEL OF EDUCATION

In general, survey respondents were evenly distributed in terms of levels of education. About 16-percent of survey respondents specified they held a GED or were high school graduates, compared to over 31-percent who specified having attended some college or trade school. Just fewer than 35-percent of respondents had completed a college degree, while just over 16-percent of respondents had acquired a postgraduate degree.

Table E-11: Level of Education

Answer	Number	Percent
High School Grad/GED	147	16%
Some College/Trade School	291	31%
College degree	323	35%
Postgraduate degree	149	16%
Other	16	2%
Q-16 total	926	100%

Source: 2011 NHMP Public Opinion Survey

HOUSEHOLD INCOME

Just under 22-percent of respondents had household incomes of \$30,000 or less, over 32-percent had incomes from \$30,000-\$60,000, roughly 25-percent had incomes between \$60,000-\$99,999, while just over 21-percent had incomes of \$100,000 or more.

Table E-12: Household Income

Household Income	Percent	Number
Less than \$10,000	4%	33
\$10,000-\$19,999	9%	70
\$20,000-\$29,999	9%	74
\$30,000-\$39,999	10%	86
\$40,000-\$49,999	10%	86
\$50,000-\$59,999	11%	89
\$60,000-\$69,999	9%	71
\$70,000-\$79,999	7%	59
\$80,000-\$89,999	6%	46
\$90,000-\$99,999	4%	33
\$100,000-\$149,999	14%	119
More than \$150,000	7%	56
Q-17 total	100%	822

Source: 2011 NHMP Public Opinion Survey

REGIONAL RESIDENCY

Table E-13 lists the zip codes reported by survey respondents.

Table E-13: Respondent Zip Code

Answer	Percent	Number	Answer	Percent	Number
96086	0%	1	97063	3%	12
97001	0%	2	97065	3%	12
97002	0%	2	97067	1%	4
97004	0%	2	97068	6%	26
97009	2%	9	97070	2%	8
97013	3%	12	97071	0%	2
97014	2%	8	97081	0%	1
97015	2%	7	97086	1%	4
97017	0%	1	97089	2%	7
97021	3%	12	97140	0%	1
97022	1%	3	97206	1%	3
97023	2%	8	97219	0%	2
97027	1%	5	97222	4%	20
97028	0%	1	97267	6%	28
97029	0%	1	97750	4%	16
97031	22%	99	97756	0%	1
97033	1%	3	97801	7%	32
97034	2%	11	97812	4%	18
97035	3%	13	97813	0%	1
97037	2%	7	97818	1%	5
97038	3%	13	97823	1%	4
97039	4%	18	97830	6%	29
97040	2%	8	97835	0%	1
97041	4%	18	97836	1%	6
97042	0%	1	97838	8%	35
97044	0%	2	97843	0%	1
97045	8%	36	97844	1%	5
97049	1%	3	97862	4%	18
97050	1%	6	97868	0%	2
97051	0%	1	97874	2%	8
97055	2%	11	97875	1%	3
97056	0%	1	97880	0%	1
97058	28%	129	97882	1%	4
97062	0%	2	97886	1%	4
			Q-18 total	100%	456

Source: 2011 NHMP Public Opinion Survey

Of the seven counties the survey was mailed to, the most returned surveys came from residents of Clackamas County (31.8-percent). In Wasco County 201 surveys were returned, followed by 153 in Hood River County, and 122 in Umatilla County. Due to the survey distribution methodology, fewer surveys were distributed to Umatilla County than were to

Clackamas, Wasco or Hood River Counties, otherwise the return rate from the county may have more closely matched that of Clackamas County, which has a more comparable number of residents compared to the other counties in the region.

Table E-14: Percent of Surveys Received Per County

County	Percent	Number
Clackamas County	32%	297
Hood River County	16%	153
Gilliam County	3%	26
Morrow County	3%	25
Sherman County	5%	47
Umatilla County	13%	122
Wasco County	21%	201
Wheeler County	7%	64
Q-19 total	100%	935

Source: 2011 NHMP Public Opinion Survey

Over 80-percent of survey respondents have lived in Oregon for 20 years or more, roughly 10-percent have lived in Oregon for 10-19 years, and nearly 5-percent have for 5-9 years.

Table E-15: Length of Oregon Residency

Answer	Percent	Number
Less than 1 year	1%	5
1-5 years	4%	34
5-9 years	5%	44
10-19 years	10%	97
20 years or more	81%	754
Q-22 total	100%	934

Source: 2011 NHMP Public Opinion Survey

HOUSING CHARACTERISTICS

Homeownership is an important variable in education and outreach programs, and knowledge of the percentage of homeowners in a community can help target the programs. Additionally, homeowners might be more willing to invest time and money in making their homes more disaster resistant. Over 87-percent of survey respondents are homeowners.

Table E-16: Home Ownership

Answer	Percent	Number
Rent	13%	119
Own	87%	808
Q-23 total	100%	927

Source: 2011 NHMP Public Opinion Survey

Nearly 79-percent of survey respondents live in single family homes, 12-percent live in manufactured homes, and five-percent in apartments; the other four-percent live in duplexes, condo/townhouses, or some other form of housing.

Table E-17: Housing Type

Answer	Percent	Number
Single-family home	79%	710
Duplex	1%	5
Apartment (3-4 units)	1%	8
Apartment (5 or more units)	4%	35
Condo/townhouse	2%	16
Manufactured home	12%	112
Other	2%	18
Q-24 total	100%	904

Source: 2011 NHMP Public Opinion Survey

RACE AND ETHNICITY

Just under 97-percent of survey respondents specified white as their race; of those that replied, only 28 (roughly three-percent) specified a race other than white. Table E-18 presents the results.

Table E-18: Respondent Race

Race	Percent	Number
American Indian or Alaska Native	2%	16
Asian	1%	12
Black or African American	0%	3
Native Hawaiian or Other Pac Islander	0%	1
White	96%	879
Q-20 total	100%	911

Source: 2011 NHMP Public Opinion Survey

With respect to ethnicity, just under two-percent of survey respondents self identified as Hispanic or Latino, whereas US Census figures suggest that the number should be much higher for the region. For example, nearly 15-percent of the population in Wasco County is reported as Hispanic or Latino in origin, compared to nearly 24-percent in Umatilla County.

Table E-19: Respondent Ethnicity

Ethnicity	Percent	Number
Hispanic or Latino	2%	16
Not Hispanic or Latino	98%	826
Q-21 Total	100%	842

Source: 2011 NHMP Public Opinion Survey

Mid-Columbia Region Natural Hazard Mitigation Public Opinion Survey



Your household has been randomly selected to participate in this survey about public perceptions and opinions regarding natural hazards in your county. In addition, we would like information regarding the methods and techniques you prefer for reducing the risks and losses associated with these hazards. The questionnaire should be completed by an adult, preferably the head of household. The information you provide will be used to help improve public/private coordination, mitigation, and risk reduction efforts in your county. The survey should take less than 30 minutes to complete.

This is a public opinion survey, the results of which will inform local natural hazard mitigation planning in Oregon. Your returned, completed survey indicates your willingness to take part in the study. Participation in this study is voluntary. The survey is not intended to contribute to "generalizable knowledge" and none of the information you provide will be attributed to you directly. If you have questions regarding your rights as a research participant, please contact the Office for Protection of Human Subjects, 1600 Millrace Drive, Suite 105, University of Oregon, Eugene, OR 97403-5219, or call (541) 346-2510.

NATURAL HAZARD INFORMATION

First we would like to know about your experiences involving natural hazards and your exposure to preparedness information.

- During the past five years in the county you currently reside in, have you or someone in your household directly experienced a natural disaster such as an earthquake, severe windstorm, flood, wildfire, or other type of natural disaster?
 - Yes
 - No (*IF NO Skip to Question 2*)

If "YES", which of these natural disasters have you or someone in your household experienced in the past five years?

(Please check all that apply)

- | | |
|---|---|
| <ul style="list-style-type: none"> <input type="checkbox"/> Drought <input type="checkbox"/> Dust Storm <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Landslide / Debris Flow <input type="checkbox"/> Wildfire | <ul style="list-style-type: none"> <input type="checkbox"/> Windstorm <input type="checkbox"/> Volcanic Eruption <input type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Other (specify): _____ |
|---|---|

- How concerned are you about the following natural disasters affecting your county?
(Check the corresponding box for each hazard)

Natural Disaster	Very Concerned	Somewhat Concerned	Neutral	Not Very Concerned	Not Concerned
Drought	<input type="checkbox"/>				
Dust Storm	<input type="checkbox"/>				
Earthquake	<input type="checkbox"/>				
Flood	<input type="checkbox"/>				
Landslide / Debris Flow	<input type="checkbox"/>				
Wildfire	<input type="checkbox"/>				
Volcanic Eruption	<input type="checkbox"/>				
Wind Storm	<input type="checkbox"/>				
Severe Winter Storm	<input type="checkbox"/>				
Other: _____	<input type="checkbox"/>				

3. Have you ever received information about how to make members of your household and your home safer from natural disasters?
- Yes
 - No (**IF NO Skip to Question 5**)

If "YES", how recently?

- Within the last 6 months
- Between 6 and 12 months
- Between 1 and 2 years
- Between 2 and 5 years
- 5 years or more

4. From whom did you **last** receive information about how to make members of your household and your home safer from natural disasters?

(Please check only one)

- | | |
|---|--|
| <input type="checkbox"/> News media | <input type="checkbox"/> Elected official |
| <input type="checkbox"/> Government agency | <input type="checkbox"/> American Red Cross |
| <input type="checkbox"/> Insurance agent or company | <input type="checkbox"/> Other non-profit organization |
| <input type="checkbox"/> Utility company | <input type="checkbox"/> Social media (e.g. Facebook) |
| <input type="checkbox"/> University or research institution | <input type="checkbox"/> Not sure |
| <input type="checkbox"/> Neighbor / friend / family member | <input type="checkbox"/> Other: _____ |

5. Whom would you **most trust** to provide you with information about how to make your household and home safer from natural disasters?

(Please check up to three)

- | | |
|---|--|
| <input type="checkbox"/> News media | <input type="checkbox"/> Elected official |
| <input type="checkbox"/> Government agency | <input type="checkbox"/> American Red Cross |
| <input type="checkbox"/> Insurance agent or company | <input type="checkbox"/> Other non-profit organization |
| <input type="checkbox"/> Utility company | <input type="checkbox"/> Social media (e.g. Facebook) |
| <input type="checkbox"/> University or research institution | <input type="checkbox"/> Not sure |
| <input type="checkbox"/> Neighbor / friend / family member | <input type="checkbox"/> Other: _____ |

6. What is the **most effective** way for you to receive information about how to make your household and home safer from natural disasters?

(Please check up to three)

Newspapers:

- Newspaper stories
- Newspaper ads

Television:

- Television news
- Television ads

Radio:

- Radio news
- Radio ads

Internet:

- Email newsletters
- Online news outlets
- Social media (e.g. Facebook)

Other methods:

- Schools
- Outdoor advertisements (billboards, etc.)
- Books
- Mail
- Fire Department/Rescue
- Fact sheet/brochure
- Chamber of Commerce
- Public workshops/meetings
- Magazine
- University or research institution
- Other: _____

7. Prior to receiving this survey, were you aware of your county's Natural Hazard Mitigation Plan (NHMP)?
- Yes
 - No

8. Prior to receiving this survey, were you aware that the Federal Emergency Management Agency (FEMA) requires your county to update the NHMP every five years in order for your county to be eligible for federal pre- and post-disaster hazard mitigation funds?

- Yes
- No

COMMUNITY VULNERABILITIES AND HAZARD MITIGATION STRATEGIES

In order to assess community risk, we need to understand which community assets may be vulnerable to natural hazards in the region. Vulnerable assets are those community features, characteristics, or resources that may be impacted by natural hazards (e.g. populations with functional needs, economic components, environmental resources, etc.). The next set of questions will focus on vulnerable assets in your community and your preferred strategies to mitigate risk to those assets.

9. Community assets are features, characteristics, or resources that either make a community unique or allow the community to function. In your opinion, which of the following *categories* are most susceptible to the impacts caused by natural hazards in your county?

(Please rank the community assets in order of vulnerability, 1 being most vulnerable and 6 being least vulnerable)

Community Assets	Potential Natural Hazard Impact	Order of Vulnerability
Human	Loss of life and/or injuries	_____
Economic	Business closures and/or job losses	_____
Infrastructure	Damage or loss of bridges, utilities, schools, etc.	_____
Cultural/Historic	Damage or loss of libraries, museums, fairgrounds, etc.	_____
Environmental	Damage or loss of forests, rangeland, waterways, etc.	_____
Governance	Ability to maintain order and/or provide public amenities and services	_____

10. Next we would like to know what specific types of community assets are most important to you.
(Check the corresponding box for each asset)

Community Assets	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important
Elder-care facilities	<input type="checkbox"/>				
Schools (K-12)	<input type="checkbox"/>				
Hospitals	<input type="checkbox"/>				
Major bridges	<input type="checkbox"/>				
Fire/Police Stations	<input type="checkbox"/>				
Museums/Historic buildings	<input type="checkbox"/>				
Major employers	<input type="checkbox"/>				
Small businesses	<input type="checkbox"/>				
College / University	<input type="checkbox"/>				
City Hall / Courthouse	<input type="checkbox"/>				
Parks	<input type="checkbox"/>				
Other: _____	<input type="checkbox"/>				
Other: _____	<input type="checkbox"/>				
Other: _____	<input type="checkbox"/>				
Other: _____	<input type="checkbox"/>				
Other: _____	<input type="checkbox"/>				

11. A number of activities can reduce your community's risk from natural hazards. These activities can be both regulatory and non-regulatory. **Please check the box that best represents your opinion of the following strategies to reduce the risk and loss associated with natural disasters.**

Community-wide Strategies	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Not Sure
I support a regulatory approach to reducing risk	<input type="checkbox"/>					
I support a non-regulatory approach to reducing risk	<input type="checkbox"/>					
I support a mix of both regulatory and non-regulatory approaches to reducing risk	<input type="checkbox"/>					
I support policies to prohibit development in areas subject to natural hazards	<input type="checkbox"/>					
I support the use of tax dollars (federal and/or local) to compensate land owners for not developing in areas subject to natural hazards	<input type="checkbox"/>					
I support the use of local tax dollars to reduce risks and losses from natural disasters	<input type="checkbox"/>					
I support protecting historical and cultural structures	<input type="checkbox"/>					
I would be willing to make my home more disaster-resistant	<input type="checkbox"/>					
I support steps to safeguard the local economy following a disaster event	<input type="checkbox"/>					
I support improving the disaster preparedness of local schools	<input type="checkbox"/>					
I support a local inventory of at-risk buildings and infrastructure	<input type="checkbox"/>					
I support the disclosure of natural hazard risks during real estate transactions	<input type="checkbox"/>					

12. Natural hazards can have a significant impact on a community, but planning for these events can help lessen the impacts. The following statements will help determine citizen priorities regarding planning for natural hazards in your county. **Please tell us how important each one is to you.**

Statements	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important
Protecting private property	<input type="checkbox"/>				
Protecting critical facilities (e.g. transportation networks, hospitals, fire stations)	<input type="checkbox"/>				
Preventing development in hazard areas	<input type="checkbox"/>				
Enhancing the function of natural features (e.g. streams, wetlands)	<input type="checkbox"/>				
Protecting historical and cultural landmarks	<input type="checkbox"/>				
Protecting and reducing damage to utilities	<input type="checkbox"/>				
Strengthening emergency services (e.g.- police, fire, ambulance)	<input type="checkbox"/>				
Disclosing natural hazard risks during real estate transactions	<input type="checkbox"/>				
Promoting cooperation among public agencies, citizens, non-profit organizations, and businesses	<input type="checkbox"/>				

MITIGATION AND PREPAREDNESS ACTIVITIES IN YOUR HOUSEHOLD

Households can mitigate and prepare for natural hazards in order to prevent damage to property, injuries, and loss of life. The precautions you take and training you receive can make a big difference in your ability to recover from a natural disaster or emergency. Access to basic services, such as electricity, gas, water, telephones and emergency care may be cut off temporarily, or you may have to evacuate at a moment's notice. The following questions focus on your household's preparedness for disaster events.

13. In the following list, please check those activities that you have done in your household, plan to do in the near future, have not done, or are unable to do.
 (Please check one answer for each preparedness activity)

In your household, have you or someone in your household:	Have Done	Plan To Do	Not Done	Unable To Do
Attended meetings or received written information on natural disasters or emergency preparedness?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Talked with members in your household about what to do in case of a natural disaster or emergency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prepared a "Disaster Supply Kit" (stored extra food, water, batteries, or other emergency supplies)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In the last year, has anyone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prepared your home by having smoke detectors on each level of the house	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Discussed or created a utility shutoff procedure in the event of a natural disaster?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

GENERAL HOUSEHOLD INFORMATION

Finally, we would appreciate any information you are willing to share with us about you and your household. This information will remain confidential and is for survey comparison purposes only.

14. Please indicate your age: _____

15. Gender: Male Female

16. Please indicate your level of education:

- High school graduate/GED
- Some college/trade school
- College degree

- Postgraduate degree
- Other (please specify): _____

17. What is your total household income?

- Less than \$10,000
- \$10,000 - \$19,999
- \$20,000 - \$29,999
- \$30,000 - \$39,999
- \$40,000 - \$49,999
- \$50,000 - \$59,999
- \$60,000 - \$69,999
- \$70,000 - \$79,999
- \$80,000 - \$89,999
- \$90,000 - \$99,999
- \$100,000 - \$149,999
- More than \$150,000

18. Zip code (optional): _____

19. County:

- | | |
|--|--|
| <input type="checkbox"/> Clackamas County | <input type="checkbox"/> Sherman County |
| <input type="checkbox"/> Hood River County | <input type="checkbox"/> Umatilla County |
| <input type="checkbox"/> Gilliam County | <input type="checkbox"/> Wasco County |
| <input type="checkbox"/> Morrow County | <input type="checkbox"/> Wheeler County |

20. Please specify your race:

- | | |
|---|--|
| <input type="checkbox"/> American Indian or Alaska Native | <input type="checkbox"/> Native Hawaiian or Other Pacific Islander |
| <input type="checkbox"/> Asian | <input type="checkbox"/> White |
| <input type="checkbox"/> Black or African American | |

21. Please specify your ethnicity:

- | | |
|---|---|
| <input type="checkbox"/> Hispanic or Latino | <input type="checkbox"/> Not Hispanic or Latino |
|---|---|

22. How long have you lived in Oregon?

- | | |
|---|---|
| <input type="checkbox"/> Less than one year | <input type="checkbox"/> 10-19 years |
| <input type="checkbox"/> 1-5 years | <input type="checkbox"/> 20 years or more |
| <input type="checkbox"/> 5-9 years | |

23. Do you own or rent your home?

- | | |
|------------------------------|-------------------------------|
| <input type="checkbox"/> Own | <input type="checkbox"/> Rent |
|------------------------------|-------------------------------|

24. Do you own/rent a:

- | | |
|---|--|
| <input type="checkbox"/> Single-family home | <input type="checkbox"/> Condominium / townhouse |
| <input type="checkbox"/> Duplex | <input type="checkbox"/> Manufactured home |
| <input type="checkbox"/> Apartment (3-4 units in structure) | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Apartment (5 or more units in structure) | |

Please feel free to provide any additional comments in the space provided:

THANK YOU VERY MUCH FOR PROVIDING THIS INFORMATION

The Oregon Partnership for Disaster Resilience at the University of Oregon's Community Service Center prepared this survey. Implementation of this survey has been made possible by funding from the Federal Emergency Management Agency and the Oregon Emergency Management.

For more information, please contact the Oregon Partnership for Disaster Resilience at 1209 University of Oregon, Eugene, OR 97403-1209, call (541) 346-3588, or visit <http://csc.uoregon.edu/opdr/>

Appendix D

Existing Plans, Policies, and Programs in Morrow County

Existing Plans Policies

The following tables summarize the exiting plans, policies and programs in Morrow County The first section covers plans and policies on the books for the County and the second section covers social service providers.

Name	Date of last Revision	Author/Owner	Description	Relation to Natural Hazard Mitigation
Morrow County Zoning Ordinance	2001	Morrow County Planning Department	Outlines how land within Morrow County is zoned and regulated promoting public health, safety and welfare	<ul style="list-style-type: none"> - The county codes influence where and what type of development are allowable. - Development Ordinance can be used to keep development out of known hazard areas.
Morrow County Subdivision Ordinance	2001	Morrow County Planning Department	Outlines the standards of subdivision, partitioning, and other land developments.	<p>Guides growth and development Can be linked to action items that shape growth and development so that they do not increase the County's risk to natural hazards, Can be linked to action items that protect natural and historical areas and areas subject to natural hazards. Can be linked to action items for how the County will implement Oregon Statewide Planning Goal 7 requirements.</p>
Regional Economic Profile	2002	Oregon Department of Employment	Economic Profile of Region 12 (Gilliam, Grant, Morrow, Umatilla, and Wheeler counties)	<p>The economic profile identifies projected population and economic growth which in turn can help identify where people and the economy maybe at risk to hazards. The economic profile can be used as the rationale behind strategies or programs to protect local businesses from natural disasters.</p>

Morrow County Comprehensive Plan		Morrow County Planning Department	The Plan guides land use and development with policies specific to Morrow County	Guides land use within the County. Goals of preserving resources and protecting life from hazards can be linked to action items that guide development to reduce the County's risk to natural hazards. Can be linked to action items for how the County will implement Oregon Statewide Planning Goal 7 requirements.
Name	Date of last Revision	Author/Owner	Description	Relation to Natural Hazard Mitigation
Morrow County Telecommunications Plan	2001	Greater Eastern Oregon Development Corporation	Summarizes existing County telecommunications infrastructure and usage; identifies opportunities for improving telecommunications and recommends priorities for action in 2001 and forthcoming years.	In section "E" under government and emergency services, there is an action that talks about 'unifying network infrastructure for county to eliminate redundant capacity, improve connectivity, and expand access to unused capacity.' Restructuring the communication system may assist emergency services operators to better communicate with the public, and between departments.
Morrow County Community Wildfire Protection Plan	2014	Morrow County Emergency Management, Planning Department, Rural Fire Protection Departments	Clarifies priorities to protect life, property, infrastructure, and resources in the effort to protect against wildfires in the County	The goal to protect communities and natural resources from wildfire is an integral part of wildfire mitigation. This plan works towards accomplishing that goal.
Morrow County Solid Waste Management Plan and Ordinance	2006	Morrow County Public Works Department	This Plan regulates solid waste management outside of the cities	Plan mentions how to go about dealing with and disposing of solid waste generated by disaster events.

Appendix E

List of Acronyms

This appendix was developed by the Community Service Center's Oregon Natural Hazards Workgroup at the University of Oregon for use by Pre-Disaster Mitigation Communities.

County and Regional

CPAWC	Cooperative Public Agencies of Washington County
CREW	Cascadia Region Earthquake Workgroup
CSEPP	Chemical Stockpile Emergency Preparedness Program
CWPP	Community Wildfire Protection Plan
PGE	Portland General Electric
PLP	Partners for Loss Prevention
NN	Northwest Natural
SWCD	Soil and Water Conservation District

Oregon

AGC	Associated General Contractors
AOC	Association of Oregon Counties
BCD	Building Codes Division (Department of Consumer and Business Services)
BPA	Bonneville Power Administration
CPW	Community Planning Workshop (University of Oregon)
DAS	Department of Administrative Services
DCBS	Department of Consumer and Business Services
DEQ	Department of Environmental Quality
DHS	Department of Human Services
DLCD	Department of Land Conservation and Development
DOGAMI	Department of Geology and Mineral Industries
DSL	Division of State Lands
ESD	Education Service District
GIHMT	Governor's Interagency Hazard Mitigation Team
GNRO	Governor's Natural Resources Office (State of Oregon)
LCDC	Land Conservation and Development Commission (State of Oregon)
LOC	League of Oregon Cities
OCS	Oregon Climate Service
ODA	Oregon Department of Agriculture
ODF	Oregon Department of Forestry
ODFW	Oregon Department of Fish and Wildlife
ODOT	Oregon Department of Transportation
OEM	Office of Emergency Management (Oregon State Police)
OEMA	Oregon Emergency Management Association

OERS	Oregon Emergency Response System
OHIRA	Oregon Hazard Identification and Risk Assessment
ONHW	Oregon Natural Hazards Workshop (University of Oregon)
ORS	Oregon Revised Statutes
ORVOAD	Oregon Voluntary Organizations Active in Disaster
OSFM	Office of State Fire Marshal (Oregon State Police)
OSP	Oregon State Police
OSSPAC	Oregon Seismic Safety Policy Advisory Commission
OSU	Oregon State University
OUS	Oregon University System
OWEB	Oregon Watershed Enhancement Board
PSU	Portland State University
PUC	Public Utility Commission
WRD	Water Resources Department

Federal

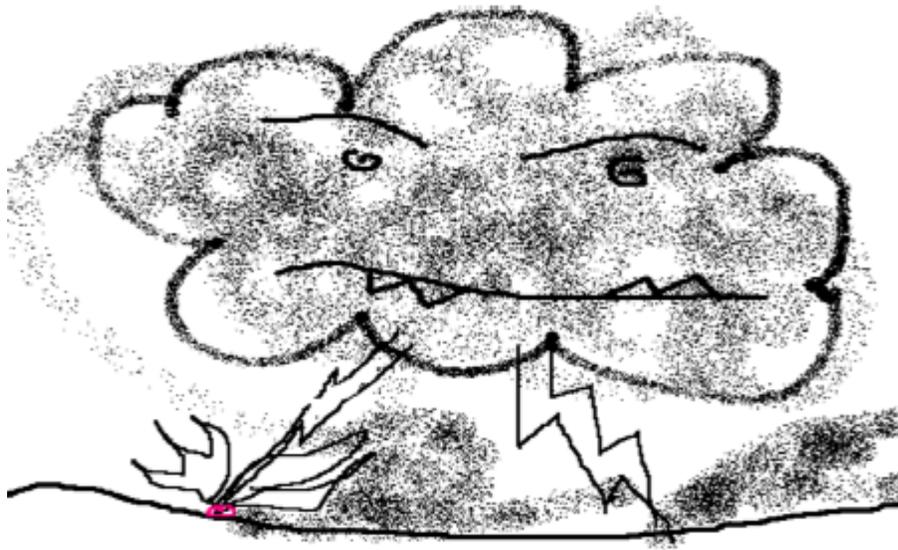
AASHTO	American Association of State Highway and Transportation Officials
AIA	American Institute of Architects
APA	American Planning Association
ARC	American Red Cross
ASCE	American Society of Civil Engineers
ATC	Applied Technology Council
b/ca	benefit/cost analysis
BFE	Base Flood Elevation
BLM	Bureau of Land Management
BSSC	Building Seismic Safety Council
CDBG	Community Development Block Grant
CFR	Code of Federal Regulations
CRS	Community Rating System
CVO	Cascade Volcano Observatory (USGS)
CWPP	Community Wildfire Protection Plan
DHS	Department of Homeland Security
EDA	Economic Development Administration
EPA	Environmental Protection Agency
ER	Emergency Relief
EWP	Emergency Watershed Protection (NRCS Program)
FAA	Federal Aviation Administration
FAS	Federal Aid System
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FMA	Flood Mitigation Assistance (FEMA Program)
FTE	Full Time Equivalent
GIS	Geographic Information System
GNS	Institute of Geological and Nuclear Sciences (International)
GSA	General Services Administration

HAZUS	Hazards U.S.
HBA	Home Builders Association
HFRA	Healthy Forest Restoration Act
HMGP	Hazard Mitigation Grant Program
HMST	Hazard Mitigation Survey Team
HUD	Housing and Urban Development (United States, Department of)
IBHS	Institute for Business and Home Safety
ICC	Increased Cost of Compliance
IHMT	Interagency Hazard Mitigation Team
NCDC	National Climate Data Center
NFIP	National Flood Insurance Program
NFPA	National Fire Protection Association
NHMP	Natural Hazard Mitigation Plan (also known as “409 Plan”)
NIBS	National Institute of Building Sciences
NIFC	National Interagency Fire Center
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NWS	National Weather Service
PDM	Pre-Disaster Mitigation Program
SBA	Small Business Administration
SEAO	Structural Engineers Association of Oregon
SHMO	State Hazard Mitigation Officer
TDR	Transfer of Development Rights
UGB	Urban Growth Boundary
URM	Unreinforced Masonry
USACE	United States Army Corps of Engineers
USBR	United States Bureau of Reclamation
USDA	United States Department of Agriculture
USFA	United States Fire Administration
USFS	United States Forest Service
USGS	United States Geological Survey
USGS-CVO	United States Geological Survey – Cascades Volcano Observatory
WSSPC	Western States Seismic Policy Council

MORROW COUNTY

Action Items

(City Action Items are in the City Annexes)



2014 New Action Items: Numbers MC14-33 through 41

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 – for Multi-Hazard #1; or FH #3 – for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)	
MH-ST		Goal 7 - Emergency Services	
Proposed Action Title:			
Improve emergency communications systems in The Willow Creek Valley			
Rationale for Proposed Action Item: (What critical issues will the action address?)			
Communications between emergency responders, ie, law enforcement, cities, and fire departments is patchy and there is no back up power. Improvements have been done - ^{Improvements} have been.			
Ideas for Implementation:			
Improve emergency communication systems between cities and emergency responders. ^{towers} _{retays have been} Provide back up emergency power systems _{put in}			
Coordinating Organization:			
Internal Partners:		External Partners:	
Heppner, Lexington, Tione, Local Fire Dept's, Law Enforcement, etc.			
Timeline:		If available, estimated cost:	
Short Term (0-2 years)	Long Term (2-4 or more years)		
X			
Form Submitted by:		David DeMayo, Heppner City Manager to L.T.	

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Improve emergency communications systems in the Willow Creek Valley MC06-01	
Responsible Agency	Emergency Services	
Contact Name	Steve Myren, Emergency Services Chief	
Contact Phone/Email	<i>(541) 676-5317</i>	
Project Status	<input checked="" type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

<p>1. What was accomplished for this project during this reporting period?</p>	<p>Relay towers have been installed. The Umatilla-Morrow Radio and Data District has been created.</p>
<p>2. What obstacles, problems, or delays did the project encounter?</p>	
<p>3. If uncompleted, is the project still relevant? Should the project be changed or revised?</p>	
<p>4. Other comments</p>	

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 – for Multi-Hazard #1; or FH #3 – for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)	
MH-ST, LT		Goal 2	
Proposed Action Title:			
Public education for property owners & recreationists in fire-prone areas.			
Rationale for Proposed Action Item: (What critical issues will the action address?)			
<p>The landowners and recreationists in the fire-prone forested areas in Morrow County are often inadequately educated or prepared for wildfires.</p> <p>Keep this as an ongoing....</p> <p>Meeting in May - Mitigation Projects & Emergency Plan for the</p>			
Ideas for Implementation: Blake Ranch Area - Brian Pitt.			
Provide printed material for English & Spanish speaking property owners and recreationists that addresses wildfire issues.			
Coordinating Organization:		Morrow County Public Works	
Internal Partners:		External Partners:	
Fire Protection Districts		Oregon Dept. of Forestry N.F.P.A. - National Fire Protection Association USFS - U.S. Forest Service	
Timeline:		If available, estimated cost:	
Short Term (0-2 years)	Long Term (2-4 or more years)		
X	X		
Form Submitted by:		Morrow County Planning Staff	

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Public education for property owners & recreationists in fire prone areas MC06-02	
Responsible Agency	Fire Protection Districts, Public Works, Oregon Department of Forestry, US Forest Service	
Contact Name	Steve Rhea, Heppner Fire Protection District	
Contact Phone/Email	<i>(541) 676-9113</i>	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input checked="" type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

1. What was accomplished for this project during this reporting period?

This is an ongoing project. The Fire Protection Districts were able to involve residents of the Blake Ranch and Penland residential areas in the Forest Use Zones in fire protection measures. The Heppner Fire Protection District was expanded to include the Blake Ranch area. The National Fire Safety Council and residential insurers provide flyers about reducing wildfire risk to residents in fire prone areas.

2. What obstacles, problems, or delays did the project encounter?

3. If uncompleted, is the project still relevant? Should the project be changed or revised?

4. Other comments

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 – for Multi-Hazard #1; or FH #3 – for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)	
MH-51		Goal 5	
Proposed Action Title:			
Back up Power for critical communication facilities in the event of a Wind/Winter Storm			
Rationale for Proposed Action Item: (What critical issues will the action address?)			
Back up power/generators don't exist for communication systems w/in the rural fire departments. Wind and Winter storms have caused outages, which would be alleviated by back-up power systems Ask Steve Myren - yes?			
Ideas for Implementation:			
Provide back up power for communication systems for the rural fire departments.			
Coordinating Organization:		Emergency Management	
Internal Partners:		External Partners:	
Emergency Management		Rural Fire Protection Districts in Morrow County, also Pilot Rock	
Timeline:		If available, estimated cost:	
Short Term (0-2 years)	Long Term (2-4 or more years)		
Form Submitted by:		Casey Beard, PDMP Steering Committee	

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Back up power for critical communication facilities in the event of a Wind/Winter storm MC06-03	
Responsible Agency	Emergency Services	
Contact Name	Steve Myren, Emergency Services Chief	
Contact Phone/Email	<i>(541) 676-5317</i>	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input checked="" type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

<p>1. What was accomplished for this project during this reporting period?</p>	<p>This project is still underway. Staffing issues have kept the emergency services department unable to work on this project</p>
<p>2. What obstacles, problems, or delays did the project encounter?</p>	<p>Staffing time, money are in short supply.</p>
<p>3. If uncompleted, is the project still relevant? Should the project be changed or revised?</p>	<p>The project is still relevant and does not need to be changed or revised.</p>
<p>4. Other comments</p>	

Copy Study *Close out + Make New*

MC06-04
2.3, 7.10
MH-ST, LT

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 – for Multi-Hazard #1; or FH #3 – for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)	
<i>MH-ST</i>		<i>Goal 2</i>	
Proposed Action Title:		<i>Goal 7</i>	
<i>Recruitment and Training of Outreach Red-Cross Volunteers</i>			
Rationale for Proposed Action Item: (What critical issues will the action address?)			
<p><i>Established emergency response agencies in the County have very limited staff and are unable to take advantage of all of the opportunities there are for decreasing the risk of damage from hazards.</i></p> <p><i>Remove from Red-Cross Action Items – but</i></p>			
Ideas for Implementation:			
<p><i>edit to encourage Red Cross training.</i></p> <p><i>Partner with other organizations to provide public education and training for hazard mitigation. this should include recruitment and training of volunteers.</i></p>			
Coordinating Organization:		<i>Red Cross</i>	
Internal Partners:		External Partners:	
<i>Emergency Management</i>		<i>Federal, State, local agencies, Volunteer groups</i>	
Timeline:		If available, estimated cost:	
Short Term (0-2 years)	Long Term (2-4 or more years)		
<i>X</i>	<i>X</i>		
Form Submitted by:		<i>ET, Planning Staff after Heppner Flash Flood Exercise, approval of Linda Curtis</i>	

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Recruitment and training of Red Cross volunteers NEW TITLE: Encourage Red Cross Training MC06-04	
Responsible Agency	Morrow County Public Health Department in conjunction with the local Red Cross	
Contact Name	• Shelly Wight, Morrow County Public Health	
Contact Phone/Email	<i>(541) 676-5421</i>	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input checked="" type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

1. What was accomplished for this project during this reporting period?

This project is a continuing project. The language of the title was changed in order to say that Morrow County will encourage training of citizens for Red Cross certification when opportunities exist. Morrow County will not conduct training but will support and encourage training that the Red Cross can provide.

2. What obstacles, problems, or delays did the project encounter?

Staffing time, money are in short supply.

3. If uncompleted, is the project still relevant? Should the project be changed or revised?

The project is still relevant and does not need to be changed or revised.

4. Other comments

Not done yet
re-write + add land use

MC06-05

2.4

3.2

planning See new...

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 – for Multi-Hazard #1; or FH #3 – for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)	
Proposed Action Title:		Goals 2,3	
Landslide risk evaluation			
Rationale for Proposed Action Item: (What critical issues will the action address?)			
<p>Characterization and evaluation of landslide risk has not been done in Morrow County. The present assessment of vulnerability and probability of landslide risk for the County (moderate and high) may be inaccurate. See the Risk Assessment and Summary in The Plan.</p>			
Ideas for Implementation:			
<p>Conduct appropriate landslide risk evaluation for areas vulnerable to landslides, such as Rhea Creek Road and Willow Creek Road.</p>			
Coordinating Organization:		ODOT, Morrow County Public Works Department Emergency Management	
Internal Partners:		External Partners:	
Public Works Emergency Management		DOGAMI, ODOT	
Timeline:		If available, estimated cost:	
Short Term (0-2 years)	Long Term (2-4 or more years)		
X			
Form Submitted by:		CT, Planning Staff	

done by Garritt

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Landslide risk evaluation MC06-05	
Responsible Agency	Morrow County Planning Department	
Contact Name	Carla McLane, Planning Director	
Contact Phone/Email	<i>(541) 922-4624</i>	
Project Status	<input checked="" type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

1. What was accomplished for this project during this reporting period?

Characterization and evaluation of landslide risk has been accomplished in the updated 2014 Natural Hazard Mitigation Plan. This was completed by the RARE participant in the reassessment of vulnerability and probability for the natural hazard risks in Morrow County in 2012.
 The next phase of this project is to evaluate how the landslide risks in the County may be addressed within the planning framework of the Comprehensive Plan and land use regulations of the County. See MC14-38

.. What obstacles, problems, or delays did the project encounter?

Planning staff is limited to 2 planners. Therefore, delays due to staff limitations maybe encountered.

3. If uncompleted, is the project still relevant? Should the project be changed or revised?

4. Other comments

re-write
bugging

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 – for Multi-Hazard #1; or FH #3 – for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)	
MH-LT		Goal 3	
Proposed Action Title:			
Discuss necessary ordinance changes based on updated Comprehensive Plan and make changes deemed to be necessary.			
Rationale for Proposed Action Item: (What critical issues will the action address?)			
Once the Natural Hazards section of The Comprehensive Plan is updated, utilize The recommendations of The Plan To meet goals 3 and 4.			
Ideas for Implementation:			
Using a public process such as Planning Commission hearings or County Court hearings re-look at The applicable Ordinances such as The Zoning Ordinance, Subdivision Ordinance; make changes deemed necessary			
Coordinating Organization:		Morrow County Planning Department	
Internal Partners:		External Partners:	
M.C. Planning Commission M.C. Court Emergency Management			
Timeline:		If available, estimated cost:	
Short Term (0-2 years)	Long Term (2-4 or more years)		
	X		
Form Submitted by:		Morrow County PDMP Steering Committee	

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Discuss necessary ordinance changes based on updated Comprehensive Plan and make changes deemed to be necessary. MC06-06	
Responsible Agency	Morrow County Planning Department	
Contact Name	Carla McLane, Planning Director	
Contact Phone/Email	<i>(541) 922-4624</i>	
Project Status	<input type="checkbox"/> Project completed <input checked="" type="checkbox"/> Project cancelled <input type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

1.	<p>What was accomplished for this project during this reporting period?</p> <p>This project has been separated into separate elements, each important enough to have its own action item. See action items MC14-35, 37 and 38.</p>
2.	<p>What obstacles, problems, or delays did the project encounter?</p> <p>Planning staff is limited to 2 planners. Therefore, delays due to staff limitations maybe encountered.</p>
3.	<p>If uncompleted, is the project still relevant? Should the project be changed or revised?</p>
4.	<p>Other comments</p>

Case: Keep - ~~MCO~~
MCO6-07
2.1

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 – for Multi-Hazard #1; or FH #3 – for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)	
MH-LT		Goal 2	
Proposed Action Title:			
Outreach and information for the Hispanic population "Other"			
Rationale for Proposed Action Item: (What critical issues will the action address?)			
At 27.6 % of The Morrow County population, The opportunity for The Hispanic portion of The population needs to be aware of natural hazards and associated risks.			
Ideas for Implementation:			
Through The use of Spanish language brochures, community events, and other awareness campaigns, provide opportunities for The Hispanic population to learn about hazards and mitigation opportunities.			
Coordinating Organization:		Emergency Management	
Internal Partners:		External Partners:	
Emergency Management		City of Bendman Hispanic community organizations	
Timeline:		If available, estimated cost:	
Short Term (0-2 years)	Long Term (2-4 or more years)		
	X		
Form Submitted by:		M.C. Planning Staff	

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Outreach and information for the Hispanic population MC06-07	
Responsible Agency	Morrow County Emergency Services	
Contact Name	Steve Myren, Chief of Emergency Services	
Contact Phone/Email	<i>(541) 676-5317</i>	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input checked="" type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

1. What was accomplished for this project during this reporting period?	This project is an ongoing project.
2. What obstacles, problems, or delays did the project encounter?	
3. If uncompleted, is the project still relevant? Should the project be changed or revised?	The project is still relevant and does not need to be changed or revised.
4. Other comments	

Talk to 541-922-3814
Bev Budgewater

MC06-08

5.32, 4.3

Action Item Proposal Form WEID

Proposed Action Item Identification: (Example MH #1 – for Multi-Hazard #1; or FH #3 – for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)	
MH-5T		Goals 4 and 5	
Proposed Action Title:			
Install automated shut down at headgates and pump stations			
Rationale for Proposed Action Item: (What critical issues will the action address?)			
In The event of a canal failure The water in The West Extension canals need to be stopped to avoid canal overflow and flooding in adjacent areas. See Risk Assessment Summary for North Morrow County.			
Ideas for Implementation:			
Install appropriate automated shut down systems at WEID headgates and pumpstations			
Coordinating Organization: WEID		WEST EXTENSION IRRIGATION DISTRICT	
Internal Partners:		External Partners:	
		State or Federal Resource Agency	
Timeline:		If available, estimated cost:	
Short Term (0-2 years)	Long Term (2-4 or more years)		
X			
Form Submitted by:		Bev Budgewater, Manager, WEID	

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Install automated shut down at head gates and pump stations. MC06-08	
Responsible Agency	West Extension Irrigation District	
Contact Name	Bev Bridgewater, Manager	
Contact Phone/Email	<i>(541) 922-3814</i>	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input checked="" type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

<p>1. What was accomplished for this project during this reporting period?</p>	<p>Automated shut downs are installed at the head gates. The only pump station that needs automated shut down is the 3-mile dam. This project is on schedule.</p>
<p>2. What obstacles, problems, or delays did the project encounter?</p>	
<p>3. If uncompleted, is the project still relevant? Should the project be changed or revised?</p>	<p>The project is still relevant and does not need to be changed or revised.</p>
<p>4. Other comments</p>	

... talk to Steve Myer - Ongoing

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 - for Multi-Hazard #1; or FH #3 - for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)	
FH - LT, ST		Goal 2	
Proposed Action Title:			
Continuing public awareness campaigns about Natural Haz. Mitigation			
Rationale for Proposed Action Item: (What critical issues will the action address?)			
Citizens in Heppner and other Willow Creek drainages need to be continually educated about what to do in case of a massive Flash Flooding event situated in the area. The citizens need to know what to do when the Flash Flood sirens go off. Rationale: There is a history of flooding in Willow Creek drainages.			
Ideas for Implementation:		See Risk Assessment Summary and Annex for Flooding	
Public awareness campaigns for residents of the assisted living areas, schools, and places where the public gather, such as the public pool, churches, stores, etc.			
Coordinating Organization:		City of Heppner + Five districts	
Internal Partners:		External Partners:	
Heppner, County Emergency Managers, Fire districts, etc		Emergency Management	
Timeline:		If available, estimated cost:	
Short Term (0-2 years)		Long Term (2-4 or more years)	
X		X	
Form Submitted by:		MC. Emergency Mgmt + Planning Staff	

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Continuing public awareness campaigns about natural hazard mitigation MC06-09	
Responsible Agency	Morrow County Emergency Services	
Contact Name	Steve Myren, Chief of Emergency Services	
Contact Phone/Email	<i>(541) 676-5317</i>	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input checked="" type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

1. What was accomplished for this project during this reporting period?	This is an ongoing project.
2. What obstacles, problems, or delays did the project encounter?	
3. If uncompleted, is the project still relevant? Should the project be changed or revised?	The project is still relevant and does not need to be changed or revised.
4. Other comments	

2, 5 MC06-10
4, 4

Completed

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 – for Multi-Hazard #1; or FH #3 – for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)	
MH-5T		Goal 4, 2	
Proposed Action Title:			
Evaluation of drought and ^{winter} windstorm risk / vulnerability / probability			
Rationale for Proposed Action Item: (What critical issues will the action address?)			
Morrow County Emergency Management has not evaluated ^{conducted} the vulnerability and probability assessments for drought, wind, and winterstorm.			
Ideas for Implementation:			
Conduct appropriate assessments of inclusion in future versions of The Plan			
Coordinating Organization:		Emergency Management	
Internal Partners:		External Partners:	
Planning Dept.		Oregon St. Dept. of Emergency Management	
Timeline:		If available, estimated cost:	
<u>Short Term</u> (0-2 years):	<u>Long Term</u> (2-4 or more years)		
X			
Form Submitted by:		LT, Planning staff	

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Evaluation of drought and winter/windstorm risk/vulnerability/probability MC06-10	
Responsible Agency	Morrow County Planning Department	
Contact Name	Carla McLane, Planning Director	
Contact Phone/Email	<i>(541) 922-4624</i>	
Project Status	<input checked="" type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

1. What was accomplished for this project during this reporting period?	This project was completed during the update process of the Plan.
2. What obstacles, problems, or delays did the project encounter?	
3. If uncompleted, is the project still relevant? Should the project be changed or revised?	
4. Other comments	

Duplicate combined w/ other

*MC06-11
3.1, 4.1 goal 6 too?*

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 – for Multi-Hazard #1; or FH #3 – for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)	
Proposed Action Title:		Goal 4 Partnership + Cooperation	
UPDATE OF MORROW COUNTY Comprehensive Plan and Zoning Ordinance		Goal 3 - Preventative	
Rationale for Proposed Action Item: (What critical issues will the action address?)			
<p>The floodplain information for The County has been updated for The Willow Creek Watershed. The new information needs to be incorporated into The Plan. The natural hazards covered in the Morrow County PDMP should be incorporated and mentioned in The Plan.</p>			
Ideas for Implementation:			
see above			
Coordinating Organization:		Morrow County Planning Dept.	
Internal Partners:		External Partners:	
Emergency Management Morrow County Planning Commission Morrow County Court			
Timeline:		If available, estimated cost:	
Short Term (0-2 years)	Long Term (2-4 or more years)		
	✓		
Form Submitted by:		Morrow County PDMP Steering Committee	

re-write

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Update of Morrow County Comprehensive Plan and Zoning Ordinance MC06-11	
Responsible Agency	Morrow County Planning Department	
Contact Name	Carla McLane, Planning Director	
Contact Phone/Email	<i>(541) 922-4624</i>	
Project Status	<input type="checkbox"/> Project completed <input checked="" type="checkbox"/> Project cancelled <input type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

1.	<p>What was accomplished for this project during this reporting period?</p> <p>The projects contained within this action item are being pursued within the actions contained in MC14-35, 37, and 38.</p>
2.	<p>What obstacles, problems, or delays did the project encounter?</p>
3.	<p>If uncompleted, is the project still relevant? Should the project be changed or revised?</p>
4.	<p>Other comments</p>

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 -for Multi-Hazard #1; or FR #3 -for Flood Hazard #3)	Alignment with Plan Goals: (List Goals the action helps to achieve.)
Flood rain hazard #3 FH - ST	Update this road to the specifications that it needs to be.
Proposed Action Title:	Goals:
Complete Road improvements on MILLER/CUTSFORTH ROAD # 747 AND #737	Structural

Rationale for Proposed Action Item:
(What critical issues will the action address?)

Culvert size, Bio swell areas, ditches / Road widening
 May 19, 2006: Washed out / Flooded Road
 Heavy Rains

Location washed out / flood during heavy rains

Ideas for Implementation:

Clearing, Grading, Bigger Culverts, Raising road Re route road.

Coordinating Organization: Morrow County Road Department

Internal Partners: **External Partners:**

County Public Works Dept Planning Department	Land Owners, State Resource Agency
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Timeline:	If available, estimated cost:
Short Term (0-2 years) Lone Term(2-4 or more years) SHORT TERM IS IDEAL 0-2 YEARS.	OPERATOR COST \$110.00 AND HOUR. GRAVEL, GRADING WORK \$500.00 AN HOUR. FOR PATCHING COLD MIX COST IS \$5.83 PER YARD.

Form Submitted by:

Sandi Putman / management assistant

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Miller/Cutsforth Road - install larger culvert MC06-12	
Responsible Agency	Morrow County Public Works	
Contact Name	Sandi Putman, Morrow County Public Works	
Contact Phone/Email	<i>(541) 989-9500</i>	
Project Status	<input checked="" type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

1. What was accomplished for this project during this reporting period?	A larger culvert was installed at Miller/Cutsforth Road #747 and #737
2. What obstacles, problems, or delays did the project encounter?	None
3. If uncompleted, is the project still relevant? Should the project be changed or revised?	
4. Other comments	

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Road improvements Nichols Lane Road #620 MC06-13	
Responsible Agency	Morrow County Public Works	
Contact Name	Sandi Putman, Morrow County Public Works	
Contact Phone/Email	<i>(541) 989-9500</i>	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input checked="" type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: <u>unknown</u> <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

1. What was accomplished for this project during this reporting period?	<p>This project is pending and will be completed as time, money and staffing allow.</p>
2. What obstacles, problems, or delays did the project encounter?	<p>As time and resources allow, this and other road improvement projects will be completed.</p>
3. If uncompleted, is the project still relevant? Should the project be changed or revised?	<p>The project is still relevant and should not be changed or revised</p>
4. Other comments	

5.5

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 - for Multi-Hazard #1; or FR #3 - for Flood Hazard #3)	Alignment with Plan Goals: (List Goals the action helps to achieve.)
Flood rain hazard #3 FH-ST	Update this road to the specifications that it needs to be. Seals
Proposed Action Title: Road improvement PIPER CANYON #647	

Rationale for Proposed Action Item:
(What critical issues will the action address?)

Culvert size, Bio swell areas, ditches / Road widening
 May 19, 2006: Washed out / Flooded Road
 Heavy Rains

Ideas for Implementation:

Clearing, Grading, Bigger Culverts, Raising road Re route road.

Coordinating Organization: Morrow County Road Department

Internal Partners:	External Partners:
County Public Works, Planning Department	Land Owners, state Resource Agency

Timeline:	If available, estimated cost:
Short Term (0-2 years) Lone Term(2-4 or more years) SHORT TERM IS IDEAL 0-2 YEARS.	OPERATOR COST \$110.00 AND HOUR. GRAVEL, GRADING WORK \$500.00 AN HOUR. FOR PATCHING COLD MIX COST IS \$5.83 PER YARD.

Form Submitted by:

Sandi Putman / management assistant

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Road improvements Piper Canyon #647 MC06-14	
Responsible Agency	Morrow County Public Works	
Contact Name	Sandi Putman, Morrow County Public Works	
Contact Phone/Email	<i>(541) 989-9500</i>	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input checked="" type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: <u>unknown</u> <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

1. What was accomplished for this project during this reporting period?	This project is pending and will be completed as time, money and staffing allow.
2. What obstacles, problems, or delays did the project encounter?	As time and resources allow, this and other road improvement projects will be completed.
3. If uncompleted, is the project still relevant? Should the project be changed or revised?	The project is still relevant and should not be changed or revised
4. Other comments	

9.6

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 -for Multi-Hazard #1; or FR #3 -for Flood Hazard #3)	Alignment with Plan Goals: (List Goals the action helps to achieve.)
Flood rain hazard #3 FH-ST	Update this road to the specifications that it needs to be. Goals
Proposed Action Title: Road improvements TURNER LANE #504	

Rationale for Proposed Action Item:
(What critical issues will the action address?)

Culvert size, Bio swell areas, ditches / Road widening
 May 19, 2006: Washed out / Flooded Road
 Heavy Rains

Ideas for Implementation:

Clearing, Grading, Bigger Culverts, Raising road Re route road.

Coordinating Organization: Morrow County Road Department

Internal Partners:	External Partners:
County Public Works Dept, Planning Department	Land Owners, State Resource Agency

Timeline:	If available, estimated cost:
Short Term (0-2 years) Lone Term(2-4 or more years) SHORT TERM IS IDEAL 0-2 YEARS.	OPERATOR COST \$110.00 AND HOUR. GRAVEL, GRADING WORK \$500.00 AN HOUR. FOR PATCHING COLD MIX COST IS \$5.83 PER YARD.

Form Submitted by:

Sandi Putman / management assistant

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Location/Project Title	Road Improvements Turner Lane MC06-15	
Responsible Agency	Morrow County Public Works	
Contact Name	Sandi Putman, Morrow County Public Works	
Contact Phone/Email	<i>(541) 989-9500</i>	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input checked="" type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: <u>unknown</u> <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

1. What was accomplished for this project during this reporting period?	This project is pending and will be completed as time, money and staffing allow.
2. What obstacles, problems, or delays did the project encounter?	As time and resources allow, this and other road improvement projects will be completed.
3. If uncompleted, is the project still relevant? Should the project be changed or revised?	The project is still relevant and should not be changed or revised
4. Other comments	

5.7

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 -for Multi-Hazard #1; or FR #3 -for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)	
Flood rain hazard #3 24.57 5.7		Update this road to the specifications that it needs to be.	
Proposed Action Title:		Goal 5	
Road Improvements: DEE COX ROAD #723			
Rationale for Proposed Action Item: (What critical issues will the action address?)			
Culvert size, Bio swell areas, ditches / Road widening May 19, 2006: Washed out / Flooded Road Heavy Rains			
Ideas for Implementation:			
Clearing, Grading, Bigger Culverts, Raising road Re route road.			
Coordinating Organization:		Morrow County Road Department	
Internal Partners:		External Partners:	
County Public Works, Planning Department		Land Owners, State Resource agency	
Timeline:		If available, estimated cost:	
Short Term (0-2 years) Lone Term(2-4 or more years) SHORT TERM IS IDEAL 0-2 YEARS.		OPERATOR COST \$110.00 AND HOUR. GRAVEL, GRADING WORK \$500.00 AN HOUR. FOR PATCHING COLD MIX COST IS \$5.83 PER YARD.	
Form Submitted by:			
Sandi Putman / management assistant			

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Road Improvements Dee Cox Road #723t MC06-16	
Responsible Agency	Morrow County Public Works	
Contact Name	Sandi Putman, Morrow County Public Works	
Contact Phone/Email	<i>(541) 989-9500</i>	
Project Status	<input checked="" type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

1. What was accomplished for this project during this reporting period?	Ditches were cleaned out.
2. What obstacles, problems, or delays did the project encounter?	None
3. If uncompleted, is the project still relevant? Should the project be changed or revised?	
4. Other comments	

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 -for Multi-Hazard #1; or FR #3 -for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)
Flood rain hazard #3 FH-ST 5.8		Update this road to the specifications that it needs to be. Goal 5
Proposed Action Title: Road improvements BLACK HORSE ROAD ALSO PAVED PORTION SOME DAMAGE. NEEDS PATCHED AND GRADED ON GRAVEL #719		

Rationale for Proposed Action Item:
(What critical issues will the action address?)

Culvert size, Bio swell areas, ditches / Road widening
May 19, 2006: Washed out / Flooded Road
Heavy Rains

Ideas for Implementation:

Clearing, Grading, Bigger Culverts, Raising road Re route road.

Coordinating Organization: Morrow County Road Department

Internal Partners:	External Partners:
County Public Works Dept. Planning Department	Land Owners, State resource agency

Timeline: Short Term (0-2 years) Lone Term(2-4 or more years)	If available, estimated cost:
SHORT TERM IS IDEAL 0-2 YEARS.	OPERATOR COST \$110.00 AND HOUR. GRAVEL, GRADING WORK \$500.00 AN HOUR. FOR PATCHING COLD MIX COST IS \$5.83 PER YARD.

Form Submitted by:
Sandi Putman / management assistant

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Road Improvements Black Horse Road also paved portion some damage. Needs patched and graded on gravel. #713 MC06-17	
Responsible Agency	Morrow County Public Works	
Contact Name	Sandi Putman, Morrow County Public Works	
Contact Phone/Email	<i>(541) 989-9500</i>	
Project Status	<input checked="" type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

1. What was accomplished for this project during this reporting period?	Improvements made, patched and graded on gravel.
2. What obstacles, problems, or delays did the project encounter?	None
3. If uncompleted, is the project still relevant? Should the project be changed or revised?	
4. Other comments	

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 - for Multi-Hazard #1; or FR #3 - for Flood Hazard #3)	Alignment with Plan Goals: (List Goals the action helps to achieve.)
Flood rain hazard #3 FH-ST	Update this road to the specifications that it needs to be. Goal 5
Proposed Action Title: Road Improvements SHOBE CANYON #713	

Rationale for Proposed Action Item:
(What critical issues will the action address?)

Culvert size, Bio swell areas, ditches / Road widening
 May 19, 2006: Washed out / Flooded Road
 Heavy Rains

Ideas for Implementation:

Clearing, Grading, Bigger Culverts, Raising road Re route road.

Coordinating Organization: Morrow County Road Department

Internal Partners:	External Partners:
County Public Works Dept. Planning Department	Land Owners, State Resource agency

Timeline: Short Term (0-2 years) Lone Term(2-4 or more years) SHORT TERM IS IDEAL 0-2 YEARS.	If available, estimated cost: OPERATOR COST \$110.00 AND HOUR. GRAVEL, GRADING WORK \$500.00 AN HOUR. FOR PATCHING COLD MIX COST IS \$5.83 PER YARD.
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Form Submitted by:
Sandi Putman / management assistant, MC Public Works

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Road improvements Stock Drive Lane #614 MC06-18	
Responsible Agency	Morrow County Public Works	
Contact Name	Sandi Putman, Morrow County Public Works	
Contact Phone/Email	<i>(541) 989-9500</i>	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input checked="" type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: <u>unknown</u> <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

<p>1. What was accomplished for this project during this reporting period?</p>	<p>This project is pending and will be completed as time, money and staffing allow.</p>
<p>2. What obstacles, problems, or delays did the project encounter?</p>	<p>As time and resources allow, this and other road improvement projects will be completed.</p>
<p>3. If uncompleted, is the project still relevant? Should the project be changed or revised?</p>	<p>The project is still relevant and should not be changed or revised</p>
<p>4. Other comments</p>	

5.11

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 - for Multi-Hazard #1; or FR #3 - for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)
<p style="text-align: center;"><i>Flood rain hazard #3</i></p> <p><i>FH-ST</i> <i>5.11</i></p>		<p><i>Update this road to the specifications that it needs to be.</i></p> <p style="text-align: center;"><i>Goal 5</i></p>
<p>Proposed Action Title:</p> <p><i>Road Improvements</i></p> <p><i>PERLBERG NOT A BIG ISSUE SPOTTY #675</i></p>		

Rationale for Proposed Action Item:
(What critical issues will the action address?)

Culvert size, Bio swell areas, ditches / Road widening
May 19, 2006: Washed out / Flooded Road
Heavy Rains

Ideas for Implementation:

Clearing, Grading, Bigger Culverts, Raising road Re route road.

Coordinating Organization: *Morrow County Road Department*

Internal Partners:	External Partners:
<i>County Public Works Dept, Planning Department</i>	<i>Land Owners, State resource agency</i>

Timeline:	If available, estimated cost:
<p>Short Term (0-2 years) Long Term (2-4 or more years)</p> <p><i>SHORT TERM IS IDEAL 0-2 YEARS.</i></p>	<p><i>OPERATOR COST \$110.00 AND HOUR. GRAVEL, GRADING WORK \$500.00 AN HOUR. FOR PATCHING COLD MIX COST IS \$5.83 PER YARD.</i></p>

Form Submitted by:

Sandi Putman / management assistant / MC Public Works

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Road improvements Perlberg #675 MC06-19	
Responsible Agency	Morrow County Public Works	
Contact Name	Sandi Putman, Morrow County Public Works	
Contact Phone/Email	<i>(541) 989-9500</i>	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input checked="" type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: <u>unknown</u> <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

<p>1. What was accomplished for this project during this reporting period?</p>	<p>This project is pending and will be completed as time, money and staffing allow.</p>
<p>2. What obstacles, problems, or delays did the project encounter?</p>	<p>As time and resources allow, this and other road improvement projects will be completed.</p>
<p>3. If uncompleted, is the project still relevant? Should the project be changed or revised?</p>	<p>The project is still relevant and should not be changed or revised</p>
<p>4. Other comments</p>	

5.12

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 - for Multi-Hazard #1; or FR #3 - for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)
Flood rain hazard #3 FH-ST 5.12		Update this road to the specifications that it needs to be. Goals
Proposed Action Title: Road Improvements: CLARKS CANYON WASHED OUT SPOTS (CULVERTS PLUGGED) #966		
Rationale for Proposed Action Item: (What critical issues will the action address?) Culvert size, Bio swell areas, ditches / Road widening May 19, 2006 : Washed out / Flooded Road Heavy Rains		
Ideas for Implementation: Clearing, Grading, Bigger Culverts, Raising road Re route road.		
Coordinating Organization: Morrow County Road Department		
Internal Partners:		External Partners:
County Public Works Dept, Planning Department		Land Owners, State resource agency
Timeline: Short Term (0-2 years) Lone Term(2-4 or more years) SHORT TERM IS IDEAL 0-2 YEARS.		If available, estimated cost: OPERATOR COST \$110.00 AND HOUR. GRAVEL, GRADING WORK \$500.00 AN HOUR. FOR PATCHING COLD MIX COST IS \$5.83 PER YARD.
Form Submitted by: Sandi Putman / management assistant / M.C. Public Works Dept.		

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Road improvements Clarks Canyon washed out spots #966 MC06-20	
Responsible Agency	Morrow County Public Works	
Contact Name	Sandi Putman, Morrow County Public Works	
Contact Phone/Email	<i>(541) 989-9500</i>	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input checked="" type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: <u>unknown</u> <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

<p>1. What was accomplished for this project during this reporting period?</p>	<p>This project is pending and will be completed as time, money and staffing allow.</p>
<p>2. What obstacles, problems, or delays did the project encounter?</p>	<p>As time and resources allow, this and other road improvement projects will be completed.</p>
<p>3. If uncompleted, is the project still relevant? Should the project be changed or revised?</p>	<p>The project is still relevant and should not be changed or revised</p>
<p>4. Other comments</p>	

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 -for Multi-Hazard #1; or FR #3 -for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)	
<i>Flood rain hazard #3</i> <i>FH-5</i>		<i>Update this road to the specifications that it needs to be.</i> <i>Goal 5</i>	
Proposed Action Title:			
FULLER CANYON CULVERTS PLUGGED AND WASH OUT. #612 <i>Road Improvements</i>			
Rationale for Proposed Action Item: (What critical issues will the action address?)			
<i>Culvert size, Bio swell areas, ditches / Road widening</i> <i>May 19: 2006 Washed out / Flooded Road</i> <i>Heavy Rains</i>			
Ideas for Implementation:			
<i>Clearing, Grading, Bigger Culverts, Raising road Re route road.</i>			
Coordinating Organization:		<i>Morrow County Road Department</i>	
Internal Partners:		External Partners:	
<i>County Public Works Dept,</i> <i>Planning Department</i>		<i>Land Owners, State resource agency</i>	
Timeline:		If available, estimated cost:	
Short Term (0-2 years) Lone Term(2-4 or more years) <i>SHORT TERM IS IDEAL 0-2 YEARS.</i>		<i>OPERATOR COST \$110.00 AND HOUR.</i> <i>GRAVEL, GRADING WORK \$500.00 AN HOUR.</i> <i>FOR PATCHING COLD MIX COST IS \$5.83 PER YARD.</i>	
Form Submitted by: <i>Sandi Putman / management assistant / M.C. Public Works Dept.</i>			

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Road improvements Fuller Canyon #612 MC06-21	
Responsible Agency	Morrow County Public Works	
Contact Name	Sandi Putman, Morrow County Public Works	
Contact Phone/Email	<i>(541) 989-9500</i>	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input checked="" type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: <u>unknown</u> <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

1. What was accomplished for this project during this reporting period?	<p>This project is pending and will be completed as time, money and staffing allow.</p>
2. What obstacles, problems, or delays did the project encounter?	<p>As time and resources allow, this and other road improvement projects will be completed.</p>
3. If uncompleted, is the project still relevant? Should the project be changed or revised?	<p>The project is still relevant and should not be changed or revised</p>
4. Other comments	

5.14

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 -for Multi-Hazard #1; or FR #3 -for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)
Flood rain hazard #3 FH-ST 5.14		Update this road to the specifications that it needs to be. Goal 5
Proposed Action Title: MEADOW BROOK RD #643 Road Improvements		
Rationale for Proposed Action Item: (What critical issues will the action address?) Culvert size, Bio swell areas, ditches / Road widening May 19, 2006: Washed out / Flooded Road Heavy Rains		
Ideas for Implementation: Clearing, Grading, Bigger Culverts, Raising road Re route road.		
Coordinating Organization: Morrow County Road Department		
Internal Partners:		External Partners:
County Public Works Dept, Planning Department		Land Owners, State resource agency
Timeline: Short Term (0-2 years) Lone Term(2-4 or more years) SHORT TERM IS IDEAL 0-2 YEARS.		If available, estimated cost: OPERATOR COST \$110.00 AND HOUR. GRAVEL, GRADING WORK \$500.00 AN HOUR. FOR PATCHING COLD MIX COST IS \$5.83 PER YARD.
Form Submitted by: Sandi Putman / management assistant / M.C. Public Works		

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Road Improvements Meadow Brook Road #643 MC06-22	
Responsible Agency	Morrow County Public Works	
Contact Name	Sandi Putman, Morrow County Public Works	
Contact Phone/Email	<i>(541) 989-9500</i>	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input checked="" type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: <u>unknown</u> <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

1. What was accomplished for this project during this reporting period?	This project is pending and will be completed as time, money and staffing allow.
2. What obstacles, problems, or delays did the project encounter?	As time and resources allow, this and other road improvement projects will be completed.
3. If uncompleted, is the project still relevant? Should the project be changed or revised?	The project is still relevant and should not be changed or revised
4. Other comments	

5.15

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 -for Multi-Hazard #1; or FR #3 -for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)	
Flood rain hazard #3 FH-5T 5.15		Update this road to the specifications that it needs to be. Goal 5	
Proposed Action Title: BERT PECK LANE, GRAVEL WASH OUT IN SPOTS. #616 Road Improvements			
Rationale for Proposed Action Item: (What critical issues will the action address?) Culvert size, Bio swell areas, ditches / Road widening May 19, 2006: Washed out / Flooded Road Heavy Rains			
Ideas for Implementation: Clearing, Grading, Bigger Culverts, Raising road Re route road.			
Coordinating Organization: <i>Morrow County Road Department</i>			
Internal Partners:		External Partners:	
<i>County Public Works, Planning Department</i>		<i>Land Owners, State resource agency</i>	
Timeline: Short Term (0-2 years) Lone Term(2-4 or more years). SHORT TERM IS IDEAL 0-2 YEARS.		If available, estimated cost: OPERATOR COST \$110.00 AND HOUR. GRAVEL, GRADING WORK \$500.00 AN HOUR. FOR PATCHING COLD MIX COST IS \$5.83 PER YARD.	
Form Submitted by: Sandi Putman / management assistant / M.C. Public Works			

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Location/Project Title	Road Improvements Bert Peck Lane #616 MC06-23	
Responsible Agency	Morrow County Public Works	
Contact Name	Sandi Putman, Morrow County Public Works	
Contact Phone/Email	<i>(541) 989-9500</i>	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input checked="" type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: <u>unknown</u> <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

<p>1. What was accomplished for this project during this reporting period?</p>	<p>This project is pending and will be completed as time, money and staffing allow.</p>
<p>2. What obstacles, problems, or delays did the project encounter?</p>	<p>As time and resources allow, this and other road improvement projects will be completed.</p>
<p>3. If uncompleted, is the project still relevant? Should the project be changed or revised?</p>	<p>The project is still relevant and should not be changed or revised</p>
<p>4. Other comments</p>	

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 -for Multi-Hazard #1; or FR #3 -for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)
Flood rain hazard #3 EH-ST		Update this road to the specifications that it needs to be. Goal 5
Proposed Action Title: LEXINGTON / CEMETARY RD. #645 Road Improvements		
Rationale for Proposed Action Item: (What critical issues will the action address?) Culvert size, Bio swell areas, ditches / Road widening May 19, 2006 : Washed out / Flooded Road Heavy Rains		
Ideas for Implementation: Clearing, Grading, Bigger Culverts, Raising road Re route road.		
Coordinating Organization: Morrow County Road Department		
Internal Partners:		External Partners:
County Public Works, Planning Department		Land Owners, State Resource Agency
Timeline: Short Term (0-2 years) Lone Term(2-4 or more years) SHORT TERM IS IDEAL 0-2 YEARS.		If available, estimated cost: OPERATOR COST \$110.00 AND HOUR. GRAVEL, GRADING WORK \$500.00 AN HOUR. FOR PATCHING COLD MIX COST IS \$5.83 PER YARD.
Form Submitted by: Sandi Putman / management assistant / M.C. Public Works		

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Road Improvements Lexington / Cemetery Road #645 MC06-24	
Responsible Agency	Morrow County Public Works	
Contact Name	Sandi Putman, Morrow County Public Works	
Contact Phone/Email	<i>(541) 989-9500</i>	
Project Status	<input checked="" type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

1.	What was accomplished for this project during this reporting period? Improvements made..
2.	What obstacles, problems, or delays did the project encounter? None
3.	If uncompleted, is the project still relevant? Should the project be changed or revised?
4.	Other comments

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 - for Multi-Hazard #1; or FR #3 - for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)	
Flood rain hazard #3 FH-ST 5.17		Update this road to the specifications that it needs to be. Goal 5	
Proposed Action Title: STRAWBERRY LANE #588 Road Improvements			
Rationale for Proposed Action Item: (What critical issues will the action address?) Culvert size, Bio swell areas, ditches / Road widening May 19, 2006: Washed out / Flooded Road Heavy Rains			
Ideas for Implementation: Clearing, Grading, Bigger Culverts, Raising road Re route road.			
Coordinating Organization:		Morrow County Road Department	
Internal Partners:		External Partners:	
County Public Works Dept. Planning Department		Land Owners, State resource agency	
Timeline: Short Term (0-2 years) Long Term (2-4 or more years) SHORT TERM IS IDEAL 0-2 YEARS.		If available, estimated cost: OPERATOR COST \$110.00 AND HOUR. GRAVEL, GRADING WORK \$500.00 AN HOUR. FOR PATCHING COLD MIX COST IS \$5.83 PER YARD.	
Form Submitted by: Sandi Putman / management assistant / M.C. Public Works			

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Location/Project Title	Road Improvements Strawberry Lane #588 MC06-25	
Responsible Agency	Morrow County Public Works	
Contact Name	Sandi Putman, Morrow County Public Works	
Contact Phone/Email	<i>(541) 989-9500</i>	
Project Status	<input checked="" type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: _____ <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

1.	What was accomplished for this project during this reporting period? Improvements made..
2.	What obstacles, problems, or delays did the project encounter? None
3.	If uncompleted, is the project still relevant? Should the project be changed or revised?
4.	Other comments

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 -for Multi-Hazard #1; or FR #3 -for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)	
Flood rain hazard #3 FA-57 5.18		Update this road to the specifications that it needs to be. Goal 5	
Proposed Action Title: LOYD ROAD #924 Road Improvements			
Rationale for Proposed Action Item: (What critical issues will the action address?)			
Culvert size, Bio swell areas, ditches / Road widening May 19, 2006 ; Washed out / Flooded Road Heavy Rains			
Ideas for Implementation:			
Clearing, Grading, Bigger Culverts, Raising road Re route road.			
Coordinating Organization:		Morrow County Road Department	
Internal Partners:		External Partners:	
County Public Works Dept, Planning Dept.		Land Owners, State Resource agency	
Timeline: Short Term (0-2 years) Lone Term(2-4 or more years)		If available, estimated cost:	
SHORT TERM IS IDEAL 0-2 YEARS.		OPERATOR COST \$110.00 AND HOUR. GRAVEL, GRADING WORK \$500.00 AN HOUR. FOR PATCHING COLD MIX COST IS \$5.83 PER YARD.	
Form Submitted by: Sandi Putman / management assistant /MC. Public Works Dept.			

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Road improvements Lloyd Road MC06-26	
Responsible Agency	Morrow County Public Works	
Contact Name	Sandi Putman, Morrow County Public Works	
Contact Phone/Email	<i>(541) 989-9500</i>	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input checked="" type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: <u>unknown</u> <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

1. What was accomplished for this project during this reporting period?	This project is pending and will be completed as time, money and staffing allow.
2. What obstacles, problems, or delays did the project encounter?	As time and resources allow, this and other road improvement projects will be completed.
3. If uncompleted, is the project still relevant? Should the project be changed or revised?	The project is still relevant and should not be changed or revised
4. Other comments	

5.19

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 -for Multi-Hazard #1; or FR #3 -for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)	
Flood rain hazard #3 FH-ST 5.19		Update this road to the specifications that it needs to be. Goal 5	
Proposed Action Title: JOHNSON GRADE (WASHBOARDS LIGHT WASH OUT) # 526 Road Improvement			
Rationale for Proposed Action Item: (What critical issues will the action address?) Culvert size, Bio swell areas, ditches / Road widening May 19, 2006: Washed out / Flooded Road Heavy Rains			
Ideas for Implementation: Clearing, Grading, Bigger Culverts, Raising road Re route road.			
Coordinating Organization: Morrow County Road Department			
Internal Partners:		External Partners:	
County Public Works, Planning Department		Land Owners, State resource agency	
Timeline: Short Term (0-2 years) Lone Term(2-4 or more years) SHORT TERM IS IDEAL 0-2 YEARS.		If available, estimated cost: OPERATOR COST \$110.00 AND HOUR. GRAVEL, GRADING WORK \$500.00 AN HOUR. FOR PATCHING COLD MIX COST IS \$5.83 PER YARD.	
Form Submitted by: Sandi Putman / management assistant / M.C. Public Works			

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Road improvements Johnson Grade #526 MC06-27	
Responsible Agency	Morrow County Public Works	
Contact Name	Sandi Putman, Morrow County Public Works	
Contact Phone/Email	<i>(541) 989-9500</i>	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input checked="" type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: <u>unknown</u> <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

1. What was accomplished for this project during this reporting period?	This project is pending and will be completed as time, money and staffing allow.
2. What obstacles, problems, or delays did the project encounter?	As time and resources allow, this and other road improvement projects will be completed.
3. If uncompleted, is the project still relevant? Should the project be changed or revised?	The project is still relevant and should not be changed or revised
4. Other comments	

5,20

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 -for Multi-Hazard #1; or FR #3 -for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)
Flood rain hazard #3 FH-ST 5,20		Update this road to the specifications that it needs to be. Goal 5
Proposed Action Title: MORGAN EAST #537 Road Improvements		
Rationale for Proposed Action Item: (What critical issues will the action address?) Culvert size, Bio swell areas, ditches / Road widening May 19, 2006 Washed out / Flooded Road Heavy Rains		
Ideas for Implementation: Clearing, Grading, Bigger Culverts, Raising road Re route road.		
Coordinating Organization: Morrow County Road Department		
Internal Partners:		
County Public Works Planning Department		External Partners: Land Owners, State resource Agencies
Timeline: Short Term (0-2 years) Lone Term(2-4 or more years) SHORT TERM IS IDEAL 0-2 YEARS.		If available, estimated cost: OPERATOR COST \$110.00 AND HOUR. GRAVEL, GRADING WORK \$500.00 AN HOUR. FOR PATCHING COLD MIX COST IS \$5.83 PER YARD.
Form Submitted by: Sandi Putman / management assistant / M.C. Public Works Dept.		

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Road improvements Morgan East MC06-28	
Responsible Agency	Morrow County Public Works	
Contact Name	Sandi Putman, Morrow County Public Works	
Contact Phone/Email	<i>(541) 989-9500</i>	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input checked="" type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: <u>unknown</u> <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

1. What was accomplished for this project during this reporting period?	This project is pending and will be completed as time, money and staffing allow.
2. What obstacles, problems, or delays did the project encounter?	As time and resources allow, this and other road improvement projects will be completed.
3. If uncompleted, is the project still relevant? Should the project be changed or revised?	The project is still relevant and should not be changed or revised
4. Other comments	

5,21

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 - for Multi-Hazard #1; or FR #3 - for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)
Flood rain hazard #3 FH-ST		Update this road to the specifications that it needs to be. Goal 5
Proposed Action Title: LINDSTROM LN. MAJOR WASH OUT. DITCH WORK NEEDED. #538 Road Improvements		
Rationale for Proposed Action Item: (What critical issues will the action address?) Culvert size, Bio swell areas, ditches / Road widening May 19, 2006: Washed out / Flooded Road Heavy Rains		
Ideas for Implementation: Clearing, Grading, Bigger Culverts, Raising road Re route road.		
Coordinating Organization: Morrow County Road Department		
Internal Partners:		External Partners:
County Public Works Dept, Planning Department		Land Owners, State resource agency
Timeline: Short Term (0-2 years) Lone Term(2-4 or more years) SHORT TERM IS IDEAL 0-2 YEARS.		If available, estimated cost: OPERATOR COST \$110.00 AND HOUR. GRAVEL, GRADING WORK \$500.00 AN HOUR. FOR PATCHING COLD MIX COST IS \$5.83 PER YARD.
Form Submitted by: Sandi Putman / management assistant / M.C. Public Works Dept.		

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Road Improvements Lindstrom Lane #538 MC06-29	
Responsible Agency	Morrow County Public Works	
Contact Name	Sandi Putman, Morrow County Public Works	
Contact Phone/Email	<i>(541) 989-9500</i>	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input checked="" type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: <u>unknown</u> <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

1. What was accomplished for this project during this reporting period?

This project is pending and will be completed as time, money and staffing allow.

2. What obstacles, problems, or delays did the project encounter?

As time and resources allow, this and other road improvement projects will be completed.

3. If uncompleted, is the project still relevant? Should the project be changed or revised?

The project is still relevant and should not be changed or revised

4. Other comments

5.22

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 - for Multi-Hazard #1; or FR #3 - for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)	
<i>Flood rain hazard #3</i> <i>FH-ST</i>		<i>Update this road to the specifications that it needs to be.</i> <i>Goal 5</i>	
<i>5.22</i>			
Proposed Action Title: <i>WELLS SPRING (SEVERAL SPOTS) WASH OUT #663</i> <i>Road Improvements</i>			
Rationale for Proposed Action Item: (What critical issues will the action address?)			
<i>Culvert size, Bio swell areas, ditches / Road widening</i> <i>May 19, 2006 : Washed out / Flooded Road</i> <i>Heavy Rains</i>			
Ideas for Implementation:			
<i>Clearing, Grading, Bigger Culverts, Raising road Re route road.</i>			
Coordinating Organization:		<i>Morrow County Road Department</i>	
Internal Partners:		External Partners:	
<i>County Public Works Dept.</i> <i>Planning Department</i>		<i>Land Owners, State resource agency</i>	
Timeline: Short Term (0-2 years) Long Term (2-4 or more years)		If available, estimated cost:	
<i>SHORT TERM IS IDEAL 0-2 YEARS.</i>		<i>OPERATOR COST \$110.00 AND HOUR.</i> <i>GRAVEL, GRADING WORK \$500.00 AN HOUR.</i> <i>FOR PATCHING COLD MIX COST IS \$5.83 PER YARD.</i>	
Form Submitted by: <i>Sandi Putman / management assistant / M.C. Public Works Dept.</i>			

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Road improvements Wells Spring wash out MC06-30	
Responsible Agency	Morrow County Public Works	
Contact Name	Sandi Putman, Morrow County Public Works	
Contact Phone/Email	<i>(541) 989-9500</i>	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input checked="" type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: <u>unknown</u> <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

1. What was accomplished for this project during this reporting period?	This project is pending and will be completed as time, money and staffing allow.
2. What obstacles, problems, or delays did the project encounter?	As time and resources allow, this and other road improvement projects will be completed.
3. If uncompleted, is the project still relevant? Should the project be changed or revised?	The project is still relevant and should not be changed or revised
4. Other comments	

5.23

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 -for Multi-Hazard #1; or FR #3 -for Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)	
Flood rain hazard #3 FH-ST 5.23		Update this road to the specifications that it needs to be. Goal 5	
Proposed Action Title: IMMIGRANT MUD BUILD UP AND SOFT SPOTS #550 Road Improvements			
Rationale for Proposed Action Item: (What critical issues will the action address?) Culvert size, Bio swell areas, ditches / Road widening May 19, 2006: Washed out / Flooded Road Heavy Rains			
Ideas for Implementation: Clearing, Grading, Bigger Culverts, Raising road Re route road.			
Coordinating Organization: Morrow County Road Department			
Internal Partners:		External Partners:	
County Public Works Dept. Planning Department		Land Owners, State resource agency	
Timeline: Short Term (0-2 years) Lone Term(2-4 or more years) SHORT TERM IS IDEAL 0-2 YEARS.		If available, estimated cost: OPERATOR COST \$110.00 AND HOUR. GRAVEL, GRADING WORK \$500.00 AN HOUR. FOR PATCHING COLD MIX COST IS \$5.83 PER YARD.	
Form Submitted by: Sandi Putman / management assistant / M.C. Public Works Dept			

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Road improvements Immigrant - Mud build up #550 MC06-31	
Responsible Agency	Morrow County Public Works	
Contact Name	Sandi Putman, Morrow County Public Works	
Contact Phone/Email	<i>(541) 989-9500</i>	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input checked="" type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: <u>unknown</u> <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

<p>1. What was accomplished for this project during this reporting period?</p>	<p>This project is pending and will be completed as time, money and staffing allow.</p>
<p>2. What obstacles, problems, or delays did the project encounter?</p>	<p>As time and resources allow, this and other road improvement projects will be completed.</p>
<p>3. If uncompleted, is the project still relevant? Should the project be changed or revised?</p>	<p>The project is still relevant and should not be changed or revised</p>
<p>4. Other comments</p>	

Action Item Proposal Form

Proposed Action Item Identification: (Example MH #1 -for Multi-Hazard #1; or FR #3 -for Flood Hazard #3)	Alignment with Plan Goals: (List Goals the action helps to achieve.)
Flood rain hazard #3 FH-ST	Update this road to the specifications that it needs to be. Goal 5
Proposed Action Title: ALPINE LANE, MAJOR WATER HOLE AND NO BASE IN SPOTS #702 Road Improvements	

Rationale for Proposed Action Item:
(What critical issues will the action address?)

Culvert size, Bio swell areas, ditches / Road widening
May 19, 2006 Washed out / Flooded Road
Heavy Rains

Ideas for Implementation:

Clearing, Grading, Bigger Culverts, Raising road Re route road.

Coordinating Organization: Morrow County Road Department

Internal Partners: External Partners:

County Public Works Dept, Planning Department	Land Owners, State Resource Agency
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Timeline: Short Term (0-2 years) Long Term(2-4 or more years)	If available, estimated cost:
SHORT TERM IS IDEAL 0-2 YEARS.	OPERATOR COST \$110.00 AND HOUR. GRAVEL, GRADING WORK \$500.00 AN HOUR. FOR PATCHING COLD MIX COST IS \$5.83 PER YARD.

Form Submitted by:

Sandi Putman / management assistant M.C. Public Works

Mitigation Action Progress Report Form

Progress Report Period	From Date: July 2006	To Date: July 2014
Action/Project Title	Road improvements Alpine Lane #702 MC06-32	
Responsible Agency	Morrow County Public Works	
Contact Name	Sandi Putman, Morrow County Public Works	
Contact Phone/Email	<i>(541) 989-9500</i>	
Project Status	<input type="checkbox"/> Project completed <input type="checkbox"/> Project cancelled <input checked="" type="checkbox"/> Project on schedule <input type="checkbox"/> Anticipated completion date: <u>unknown</u> <input type="checkbox"/> Project delayed Explain _____	

Summary of Project Progress for this Period

1. What was accomplished for this project during this reporting period?

This project is pending and will be completed as time, money and staffing allow. Some work has been done and ditch work has been patched.

2. What obstacles, problems, or delays did the project encounter?

As time and resources allow, this and other road improvement projects will be completed.

3. If uncompleted, is the project still relevant? Should the project be changed or revised?

The project is still relevant and should not be changed or revised

4. Other comments

ACTION ITEM PROPOSAL FORM

Proposed Action Item Identification: (Example MH #1 - for Multi-Hazard #1; or FH #3 - Flood Hazard #3)

MC14-33 Fire Hazard

Alignment with Plan Goals: (List Goals the action helps to achieve.)

1, 3, 4, 6, 7

Proposed Action Title:

These should be action statements rather than location statements.

Identify the proper fire district that will protect against fires in the Umatilla Chemical Depot District.

Link this with a specific goal listed with the Plan

Goal 1 - Protection of Property

Rationale for Proposed Action Item: (What critical issues will the action address?)

Describe WHY this action is important. If this location flooded or was damaged during a specific event, mention it in this section.

The US Army Chemical Depot has been deactivated and is in the Base Realignment (BRAC) process. Along with the many tasks involved with this process, what entities will protect against wildfires in that area also needs to be addressed.

This area has over 5,000 acres slated for wildlife refuge and habitat protection, more than 7,000 acres for use by the Oregon National Guard for training grounds and facilities, an estimated 1,077 acres for highway commercial/industrial uses, and over 2,000 acres of industrial grounds with approximately 942 acres of that property restricted to help preserve wildlife habitat that is presently in the area.

Ideas for Implementation

Statements about specific actions such as culvert work, bio swell areas, ditches/road widening or other actions that should be taken go here.

Discuss at the Community Wildfire Protection Plan update meetings.
Discuss at the regularly scheduled Local Reuse Authority meetings.

Coordinating Organization:

Morrow County Planning Department

Internal Partners

Morrow County Emergency Management
Morrow County Planning Department

External Partners

Umatilla County partners in fire protection and planning. Fire districts, Local Reuse Authority.

Timeline:

Short Term (0-2 years)

Long Term (2-4 or more years)

If available, estimated cost:

Form Submitted By:

Morrow County Planning Department, Planning Director

ACTION ITEM PROPOSAL FORM

Proposed Action Item Identification: (Example MH #1
– for Multi-Hazard #1; or FH #3 – Flood Hazard #3)

MC14-34 Fire Hazard

Alignment with Plan Goals: (List Goals the action helps to achieve.)

1, 3, 4, 6, 7

Proposed Action Title:

These should be action statements rather than location statements.

Maintenance of fire breaks on US Navy-owned property

Link this with a specific goal listed with the Plan

Goal 1 – Protection of Property

Rationale for Proposed Action Item: (What critical issues will the action address?)

Describe WHY this action is important. If this location flooded or was damaged during a specific event, mention it in this section.

This will be an ongoing action item. The Navy is responsible for maintaining fire breaks on its property at the Boardman Bombing Range. Untended fire breaks could result in a possibly destructive wildfire that would be very difficult to contain. The Navy has been improving fire break maintenance and shall continue to keep the fire breaks in good shape.

Ideas for Implementation

Statements about specific actions such as culvert work, bio swell areas, ditches/road widening or other actions that should be taken go here.

Discuss at the Community Wildfire Protection Plan update meetings.
Discuss at regularly scheduled meetings and other appropriate meetings with the US Navy.

Coordinating Organization:

Morrow County Planning Department

Internal Partners

Morrow County Emergency Management
Morrow County Planning Department

External Partners

US Navy

Timeline:

Short Term (0-2 years)

Long Term (2-4 or more years)

Long term - ongoing

If available, estimated cost:

Form Submitted By:

Morrow County Planning Department, Planning Director

ACTION ITEM PROPOSAL FORM

Proposed Action Item Identification: (Example MH #1 – for Multi-Hazard #1; or FH #3 – Flood Hazard #3)

MC14-35 Fire Hazard

Alignment with Plan Goals: (List Goals the action helps to achieve.)

1, 3, 4, 6, 7

Proposed Action Title:

These should be action statements rather than location statements.

Update fire siting standards for siting development in Forest Use Zones.

Link this with a specific goal listed with the Plan

Goal 3 - Preventative

Rationale for Proposed Action Item: (What critical issues will the action address?)

Describe WHY this action is important. If this location flooded or was damaged during a specific event, mention it in this section.

Current siting standards in the Forest Use Zone are inadequate relative to accessibility for response vehicles based on the Forest Practices Act. Some of the fire siting standards in are unclear, have no compliance mechanisms and no indication as to who would provide enforcement.

Ideas for Implementation

Statements about specific actions such as culvert work, bio swell areas, ditches/road widening or other actions that should be taken go here.

Discuss at the Community Wildfire Protection Plan update meetings.
Design new, adequate standards and incorporate those standards into the Forest Use Zone siting requirements in the Zoning Ordinance.

Coordinating Organization:

Morrow County Planning Department

Internal Partners

Morrow County Emergency Management
Morrow County Planning Department

External Partners

Fire Districts, US Forest Service, Oregon Department of Forestry

Timeline:

Short Term (0-2 years)

Long Term (2-4 or more years)

If available, estimated cost:

N/a

Short term 2 years

Form Submitted By:

Morrow County Planning Department, Planning Director

ACTION ITEM PROPOSAL FORM

Proposed Action Item Identification: (Example MH #1
– for Multi-Hazard #1; or FH #3 – Flood Hazard #3)

MC14-36 Multi-Hazard

Alignment with Plan Goals: (List Goals the action helps to achieve.)

1, 3, 4, 6, 7

Proposed Action Title:

These should be action statements rather than location statements.

Consideration of broadening of the NHMP to include an All Hazards Plan

Link this with a specific goal listed with the Plan

Goal 3 - Preventative

Rationale for Proposed Action Item: (What critical issues will the action address?)

Describe WHY this action is important. If this location flooded or was damaged during a specific event, mention it in this section.

At the Plan update meetings, it was discussed that there is the potential for interconnectedness of natural disaster occurrences that can result in other, non-natural disaster events, such as power disruption, gas line disturbances. The Steering Committee will consider the feasibility of connecting a natural hazards mitigation plan with other plans that deal with mitigation of non-natural hazard disaster occurrences.

Ideas for Implementation

Statements about specific actions such as culvert work, bio swell areas, ditches/road widening or other actions that should be taken go here.

Discuss at the regularly scheduled Natural Hazard Mitigation Plan stakeholder meetings.

Coordinating Organization:

Morrow County Planning Department

Internal Partners

Morrow County Emergency Management
Morrow County Planning Department

External Partners

Fire Districts, City disaster managers, Port of Morrow

Timeline:

Short Term (0-2 years)

Long Term (2-4 or more years)

Short term 2 years

If available, estimated cost:

N/a

Form Submitted By:

Morrow County Planning Department, Planning Director

ACTION ITEM PROPOSAL FORM

Proposed Action Item Identification: (Example MH #1
– for Multi-Hazard #1; or FH #3 – Flood Hazard #3)

MC14-37 Multi-Hazard

Alignment with Plan Goals: (List Goals the action helps to achieve.)

1, 3, 4, 6, 7

Proposed Action Title:

These should be action statements rather than location statements.

Update the Comprehensive Plan Natural Hazards Element

Link this with a specific goal listed with the Plan

Goal 6 – Natural Resources

Rationale for Proposed Action Item: (What critical issues will the action address?)

Describe WHY this action is important. If this location flooded or was damaged during a specific event, mention it in this section.

The Morrow County Comprehensive Plan was approved in 1986 and has not been substantially updated since then. The Natural Hazards Element has outdated information and does not adequately address natural hazards in the County.

Ideas for Implementation

Statements about specific actions such as culvert work, bio swell areas, ditches/road widening or other actions that should be taken go here.

Create updated language for the Natural Hazards Element that adequately informs about natural hazards in Morrow County. Amend the relevant portions of the Comprehensive Plan accordingly.

Coordinating Organization:

Morrow County Planning Department

Internal Partners

Morrow County Planning Department

External Partners

Oregon Department of Land Conservation and Development, DOGAMI

Timeline:

Short Term (0-2 years)

Long Term (2-4 or more years)

Short term 1 year

If available, estimated cost:

N/a

Form Submitted By:

Morrow County Planning Department, Planning Director

ACTION ITEM PROPOSAL FORM

Proposed Action Item Identification: (Example MH #1
- for Multi-Hazard #1; or FH #3 - Flood Hazard #3)

MC14-38 Landslide

Alignment with Plan Goals: (List Goals the action helps to achieve.)

1, 3, 4, 6, 7

Proposed Action Title:

These should be action statements rather than location statements.

Landslide hazard Comprehensive Plan update and Land use planning

Link this with a specific goal listed with the Plan

Goal 3- Preventative

Rationale for Proposed Action Item: (What critical issues will the action address?)

Describe WHY this action is important. If this location flooded or was damaged during a specific event, mention it in this section.

Since DOGAMI identified the landslide risk in Morrow County, it is time for the County to provide policy and mapping and to incorporate land use planning and hazard reduction/mitigation into the land use documents.

Ideas for Implementation

Statements about specific actions such as culvert work, bio swell areas, ditches/road widening or other actions that should be taken go here.

Create updated policy language for landslide hazards and incorporate the landslide hazard maps in the Comprehensive Plan. Incorporate language in the land use zones having landslide risks in order to mitigate landslide disasters

Coordinating Organization:

Morrow County Planning Department

Internal Partners

Morrow County Planning Department

External Partners

Oregon Department of Land Conservation and Development, DOGAMI

Timeline:

Short Term (0-2 years)

Long Term (2-4 or more years)

Short term 2 years

If available, estimated cost:

N/a

Form Submitted By:

Morrow County Planning Department, Planning Director

ACTION ITEM PROPOSAL FORM

Proposed Action Item Identification: (Example MH #1 - for Multi-Hazard #1; or FH #3 - Flood Hazard #3)

MC14-39 Fire Hazard

Alignment with Plan Goals: (List Goals the action helps to achieve.)

1, 3, 4, 6, 7

Proposed Action Title:

These should be action statements rather than location statements.

Fire response in Army Corp property next to the Columbia River – Who does it?

Link this with a specific goal listed with the Plan

Goal 1 – Property protection

Rationale for Proposed Action Item: (What critical issues will the action address?)

Describe WHY this action is important. If this location flooded or was damaged during a specific event, mention it in this section.

There is confusion as to who or whether the local fire districts respond to fires on the Federal lands next to the river.

Ideas for Implementation

Statements about specific actions such as culvert work, bio swell areas, ditches/road widening or other actions that should be taken go here.

Create an opportunity for the US Army Corps of Engineers, the US Fish and Wildlife, the Port of Morrow, and the local rural fire protection districts to meet and discuss fire protection along the river. Come up with an agreement as to who will fight fires on the Federal properties next to the River.

Coordinating Organization:

Morrow County Planning Department

Internal Partners

Morrow County Planning Department

External Partners

Boardman and Irrigon Rural Fire Protection Districts, US Army Corps of Engineers, US Fish and Wildlife, Port of Morrow

Timeline:

Short Term (0-2 years)

Long Term (2-4 or more years)

If available, estimated cost:

N/a

Short term 2 years

Form Submitted By:

Morrow County Planning Department, Planning Director

ACTION ITEM PROPOSAL FORM

Proposed Action Item Identification: (Example MH #1
- for Multi-Hazard #1; or FH #3 - Flood Hazard #3)

MC14-40 Fire Hazard

Alignment with Plan Goals: (List Goals the action helps to achieve.)

1, 3, 4, 6, 7

Proposed Action Title:

These should be action statements rather than location statements.

Evacuation Routes during wildfires in Blake Ranch and other S. Morrow County residential areas in the Forest Use Zone

Link this with a specific goal listed with the Plan

Goal 1 - Property protection

Rationale for Proposed Action Item: (What critical issues will the action address?)

Describe WHY this action is important. If this location flooded or was damaged during a specific event, mention it in this section.

There is a need for designated fire evacuation routes in the event of a wild fire in the residentially developed areas of southern Morrow County. This is especially evident in the Blake Ranch area.

Ideas for Implementation

Statements about specific actions such as culvert work, bio swell areas, ditches/road widening or other actions that should be taken go here.

Discuss with the appropriate authorities and develop designated fire evacuation routes where they are deemed to be needed in southern Morrow County.

Coordinating Organization:

Morrow County Planning Department

Internal Partners

Morrow County Planning Department
Morrow County Emergency Management

External Partners

Heppner Rural Fire Protection District

Timeline:

Short Term (0-2 years)

Long Term (2-4 or more years)

If available, estimated cost:

N/a

Short term 2 years

Form Submitted By:

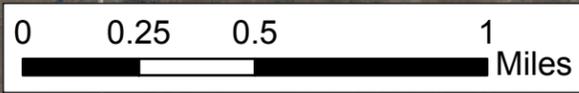
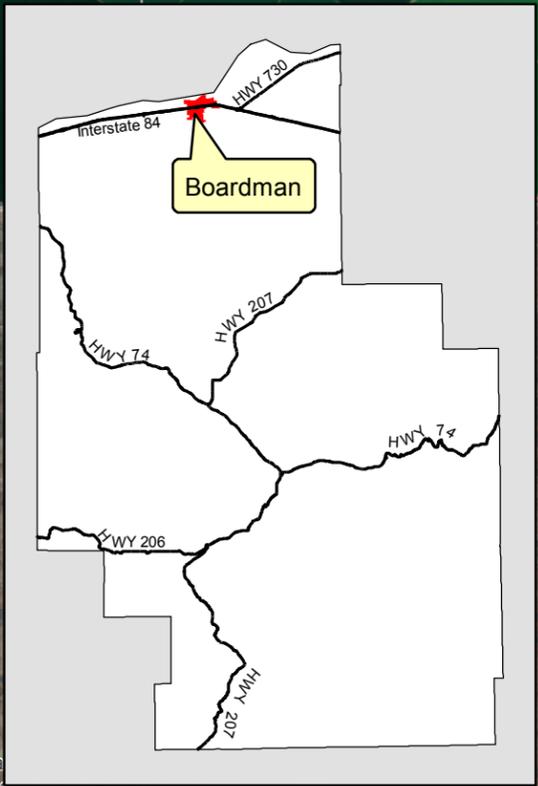
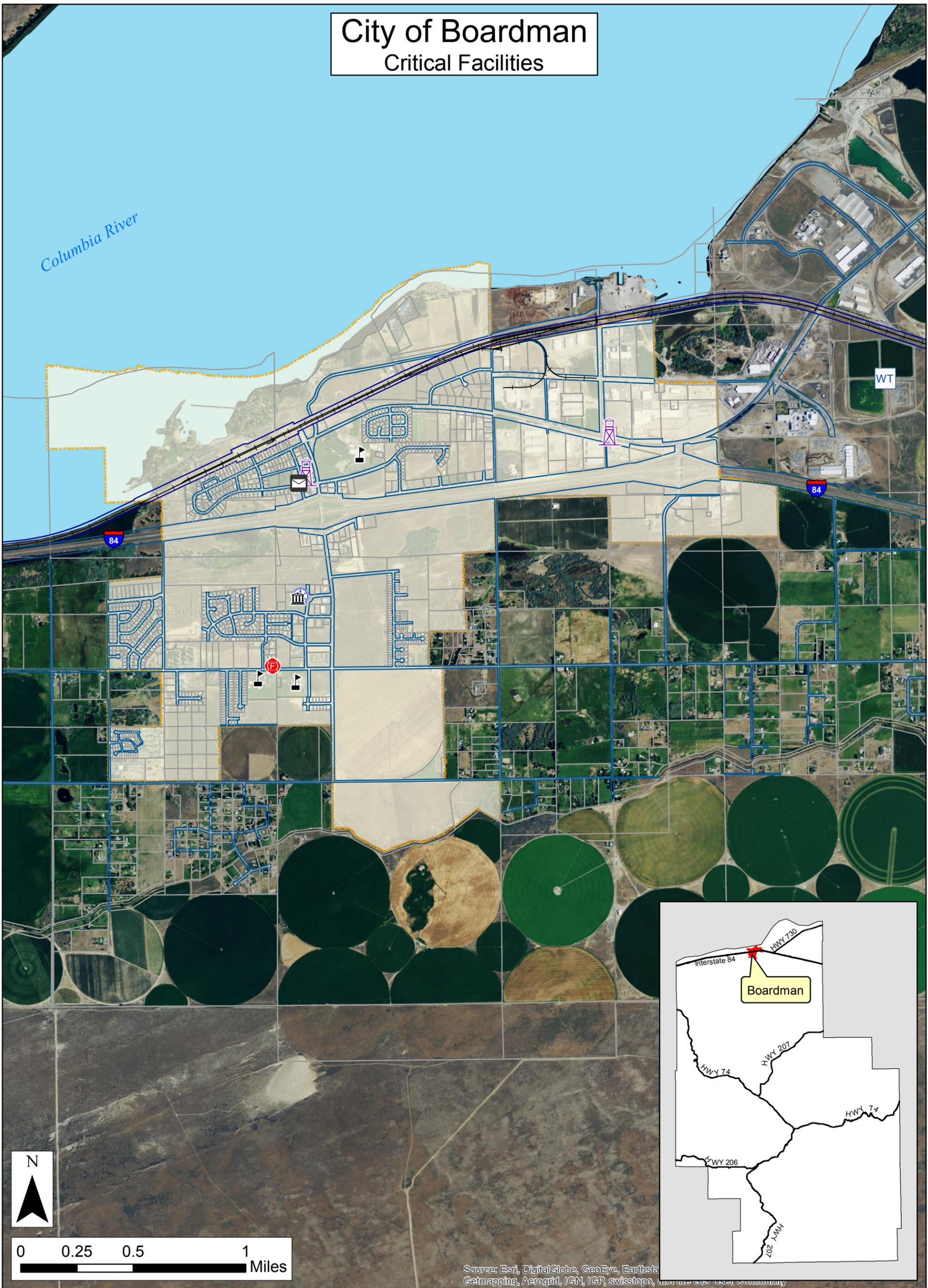
Morrow County Planning Department, Planning Director

ACTION ITEM PROPOSAL FORM

Proposed Action Item Identification: (Example MH #1 – for Multi-Hazard #1; or FH #3 – Flood Hazard #3)		Alignment with Plan Goals: (List Goals the action helps to achieve.)	
MC14-41 Flood Hazard		1, 3, 4, 6, 7	
Proposed Action Title: These should be action statements rather than location statements.		Link this with a specific goal listed with the Plan	
Compliance with the National Flood Insurance Program (NFIP)		Goal 1 – Property protection	
Rationale for Proposed Action Item: (What critical issues will the action address?)			
Describe WHY this action is important. If this location flooded or was damaged during a specific event, mention it in this section.			
The Willow Creek Valley area and other, lesser known drainages occasionally experience devastating flooding. Adherence to our ordinances will mitigate the risk to life and property.			
Ideas for Implementation			
Statements about specific actions such as culvert work, bio swell areas, ditches/road widening or other actions that should be taken go here.			
This is a continuing project. Morrow County will continue to comply with the requirements of FEMA and Oregon State Flood protection regulations. This is accomplished by adherence to the Flood plain development ordinances within the Morrow County Zoning Ordinance.			
Coordinating Organization:		Morrow County Planning Department	
Internal Partners		External Partners	
Morrow County Planning Department		FEMA. Oregon Emergency Management	
Timeline:		If available, estimated cost:	
Short Term (0-2 years)	Long Term (2-4 or more years)	N/a	
	Ongoing, long term		
Form Submitted By:		Morrow County Planning Department, Planning Director	

Appendix G: **MAPS**

City of Boardman Critical Facilities



Source: Esri, DigitalGlobe, GeoEye, Earthstar, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



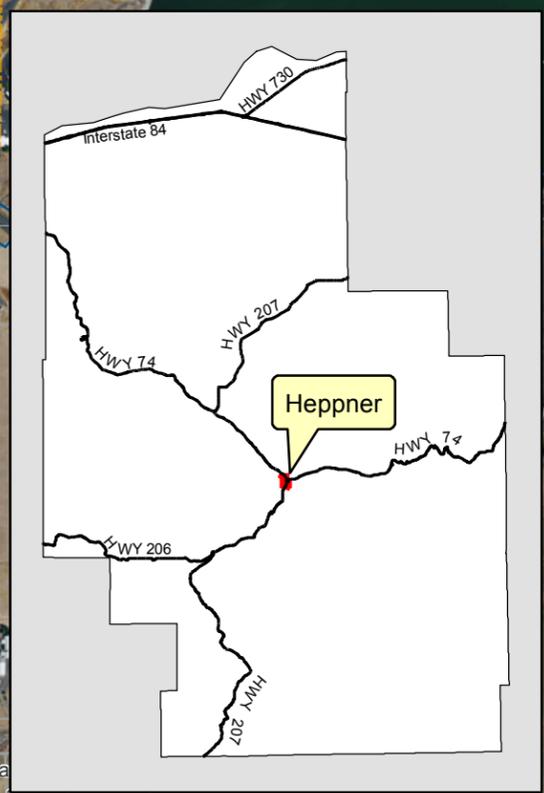
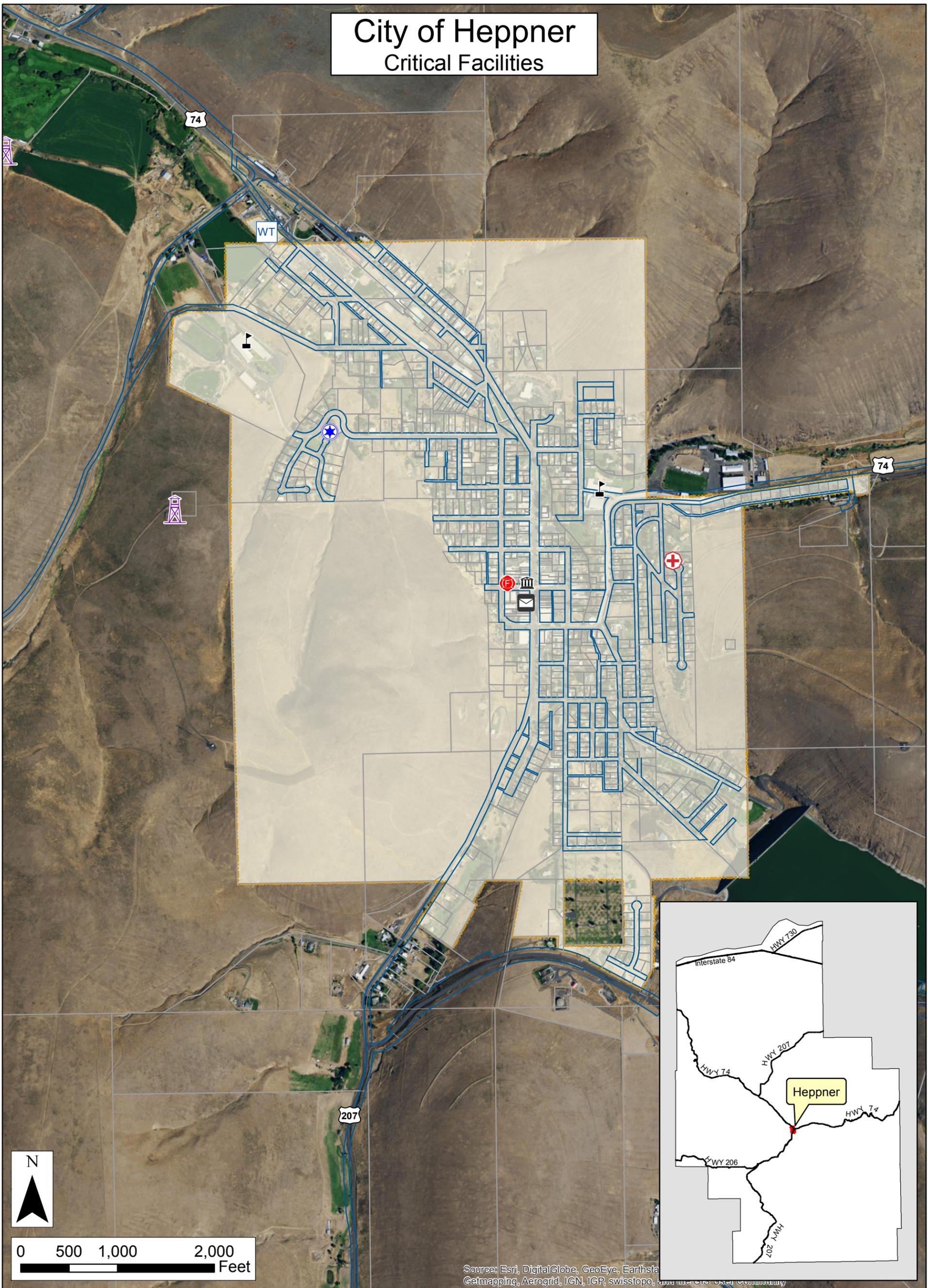
Morrow County NHMP 2016 - Appendices

- | | | |
|-----------------|--------------------------|-------------|
| Medical Clinic | City Hall | Railroad |
| Fire Station | Water Treatment Facility | City Limits |
| Law Enforcement | Water Tower | |
| School | Post Office | |

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Natural Hazard Mitigation Plan
Map for Reference Use Only
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December 2016

City of Heppner Critical Facilities



Source: Esri, DigitalGlobe, GeoEye, Earthstar, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



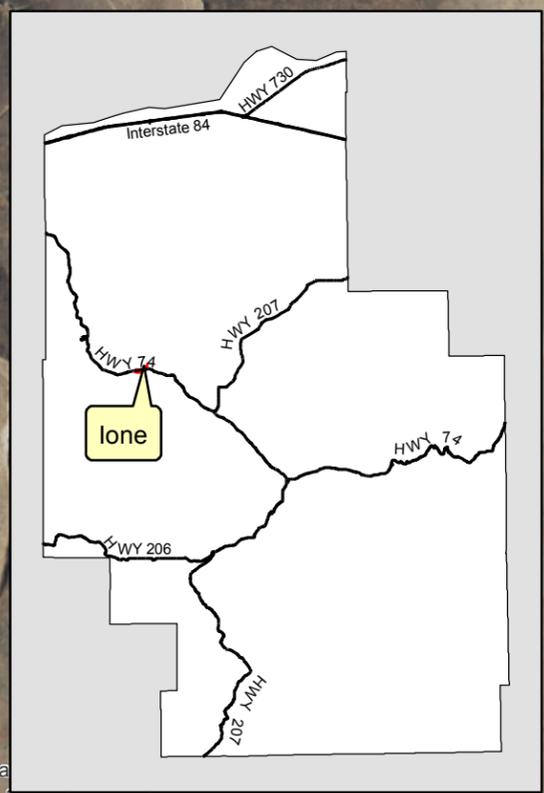
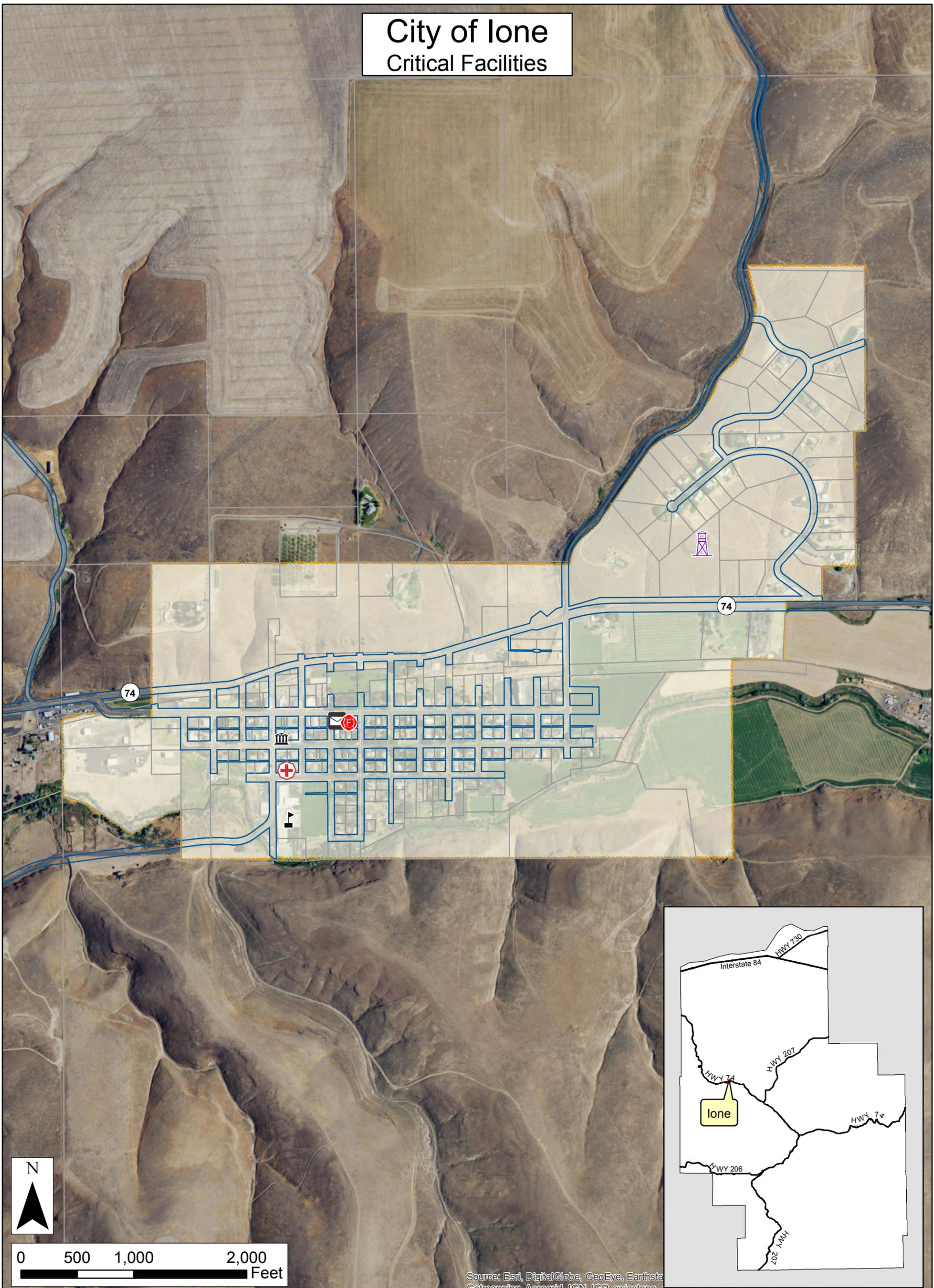
Morrow County NHMP 2016 - Appendices

- | | | | | | |
|--|-----------------|--|--------------------------|--|-------------|
| | Medical Clinic | | Water Tower | | City Limits |
| | Fire Station | | Water Treatment Facility | | |
| | Law Enforcement | | City Hall | | |
| | School | | Post Office | | |

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City of Lone Critical Facilities

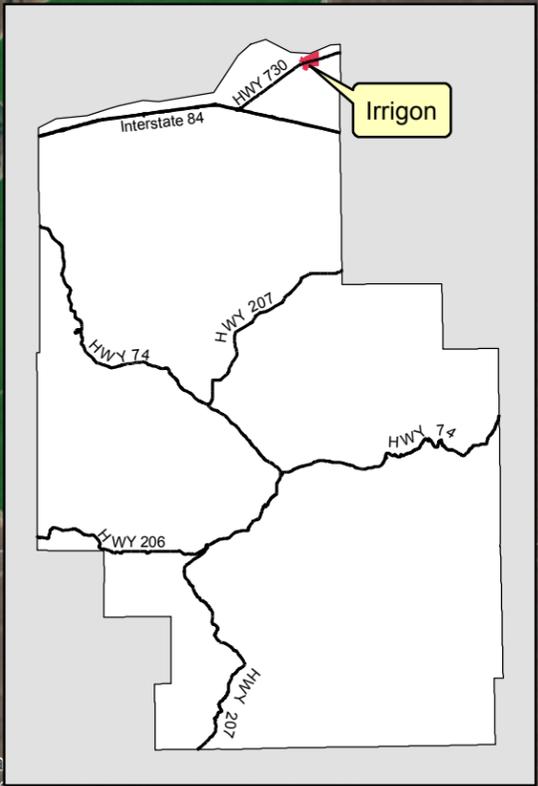
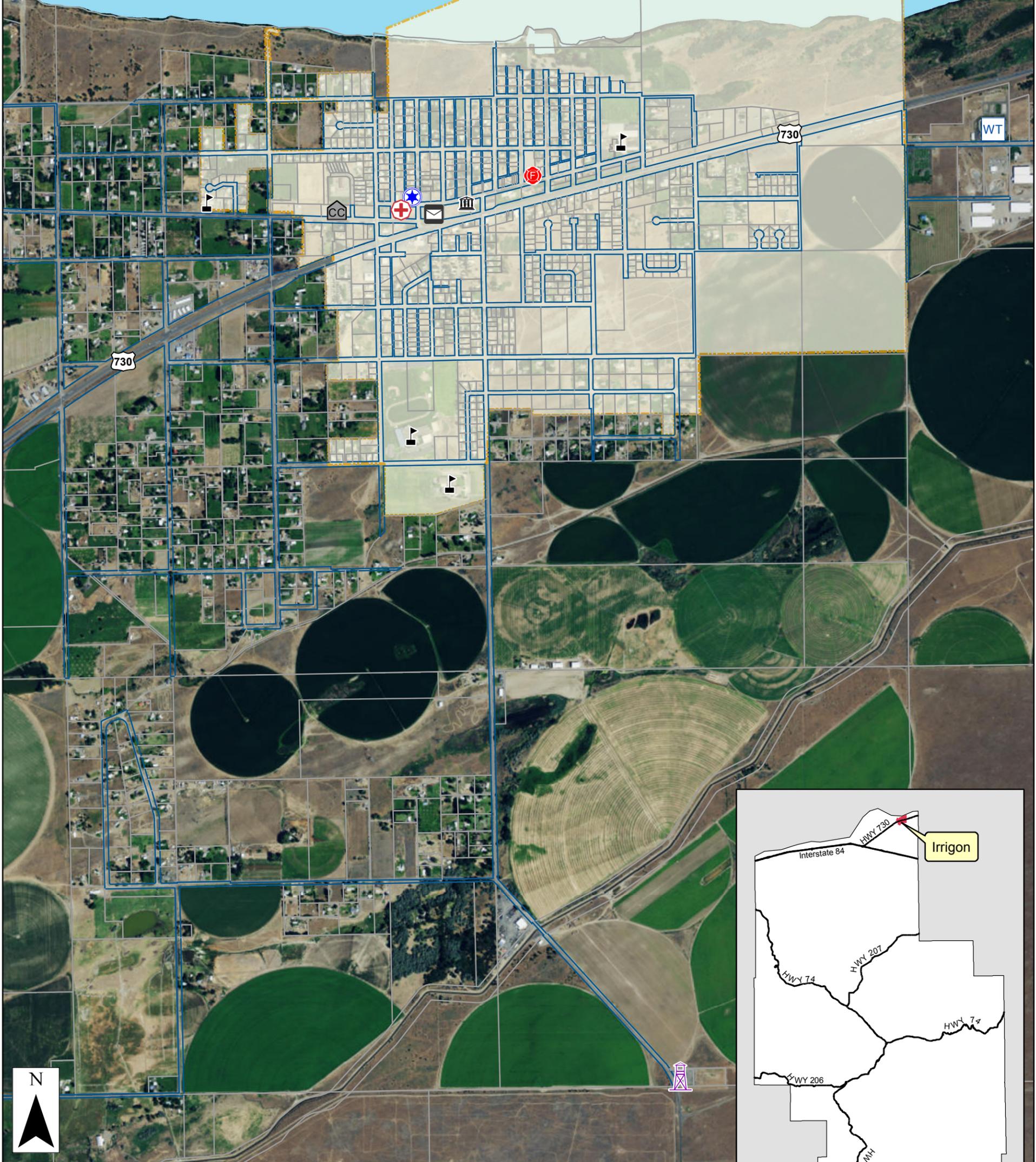


-  Medical Clinic
-  Fire Station
-  School
-  City Hall
-  Post Office
-  Water Tower
-  City Limits

October 2015
Natural Hazard Mitigation Plan
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City of Irrigon Critical Facilities

Columbia River



Source: Esri, DigitalGlobe, GeoEye, Earthstar, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



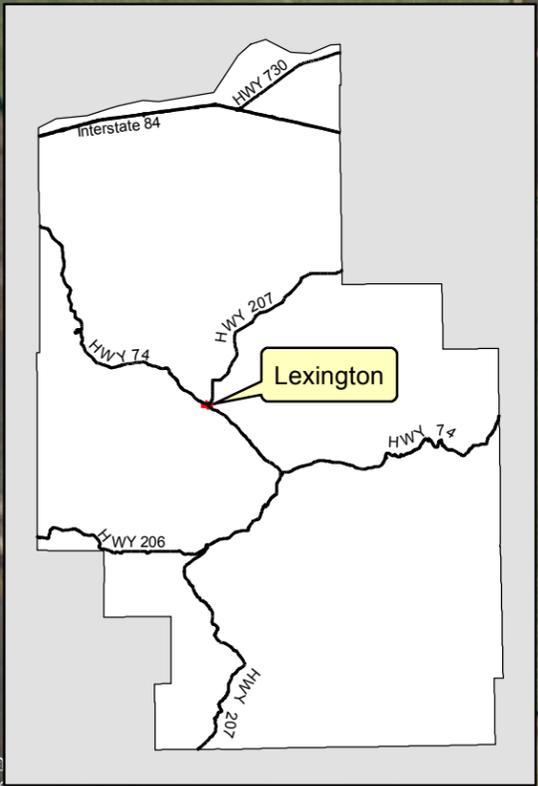
Morrow County NHMP 2016 - Appendices

- | | | |
|-----------------|------------------|--------------------------|
| Medical Clinic | City Hall | Water Treatment Facility |
| Fire Station | Community Center | City Limits |
| Law Enforcement | Post Office | |
| School | Water Tower | |

December 2016

October 2015
Natural Hazard Mitigation Plan
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Town of Lexington Critical Facilities



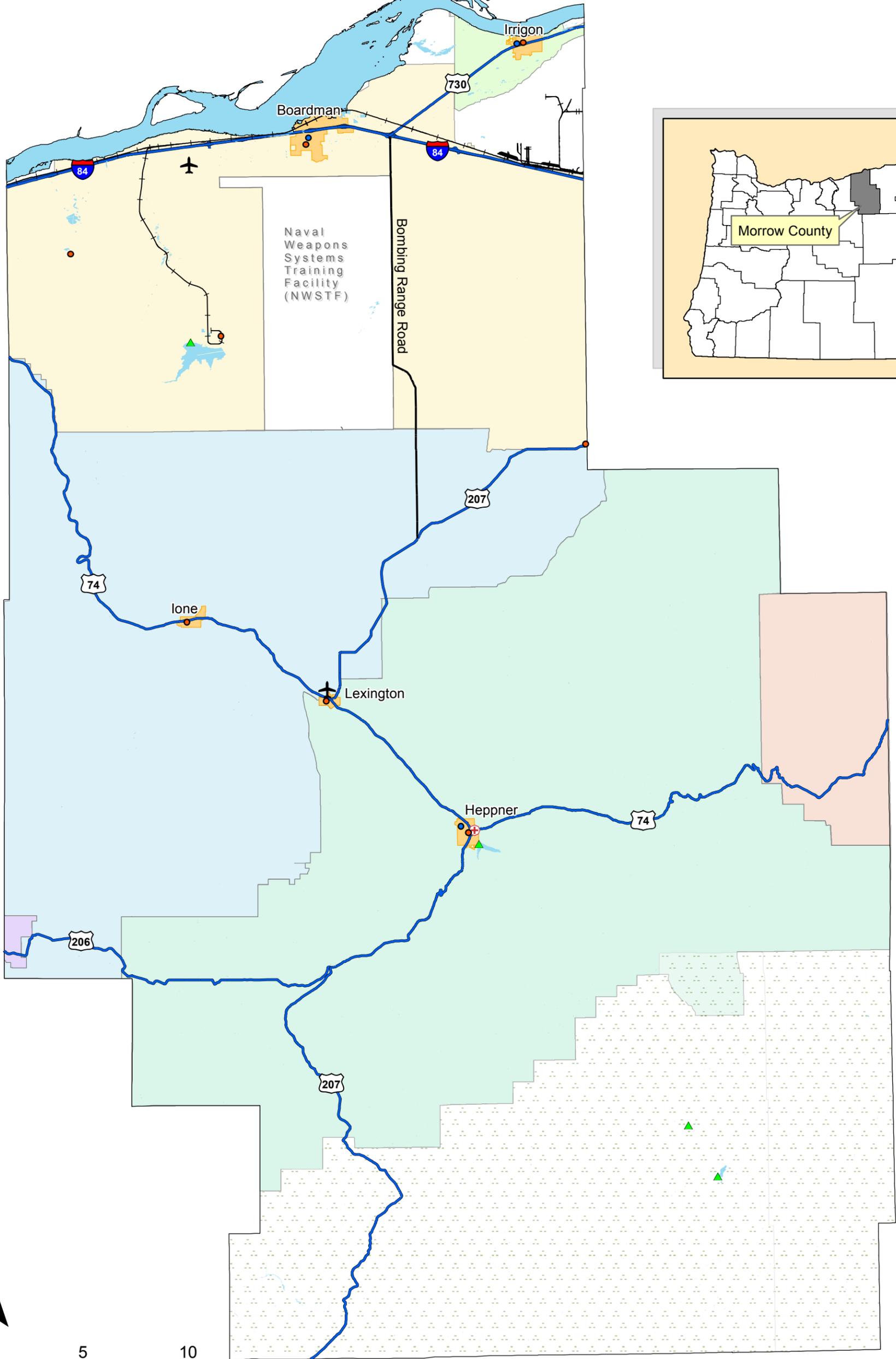
Source: Esri, DigitalGlobe, GeoEye, Earthstar, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



-  City Hall
-  Fire Station
-  Water Tower
-  City Limits

October 2015
Natural Hazard Mitigation Plan
Map for Reference Use Only

Morrow County Critical Facilities



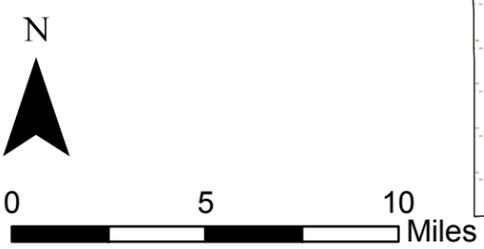
Naval Weapons Systems Training Facility (NWSTF)

Bombing Range Road

Ione

Lexington

Heppner



Morrow County NHMP 2016 - Appendices

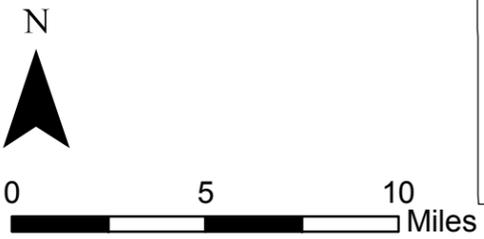
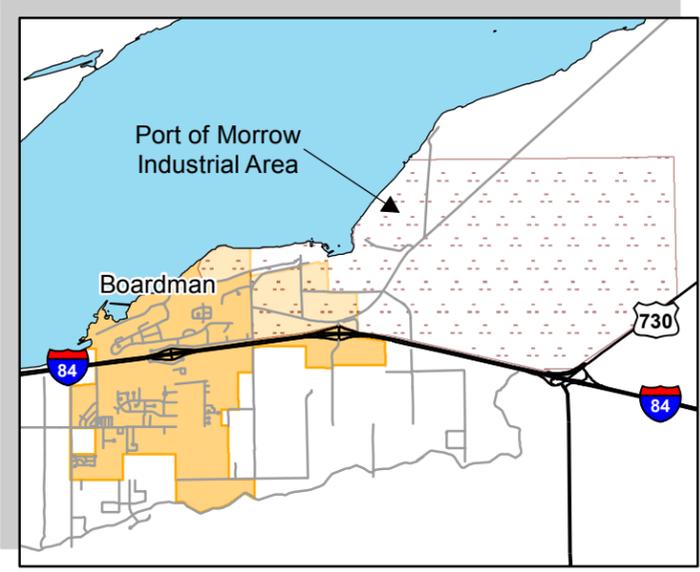
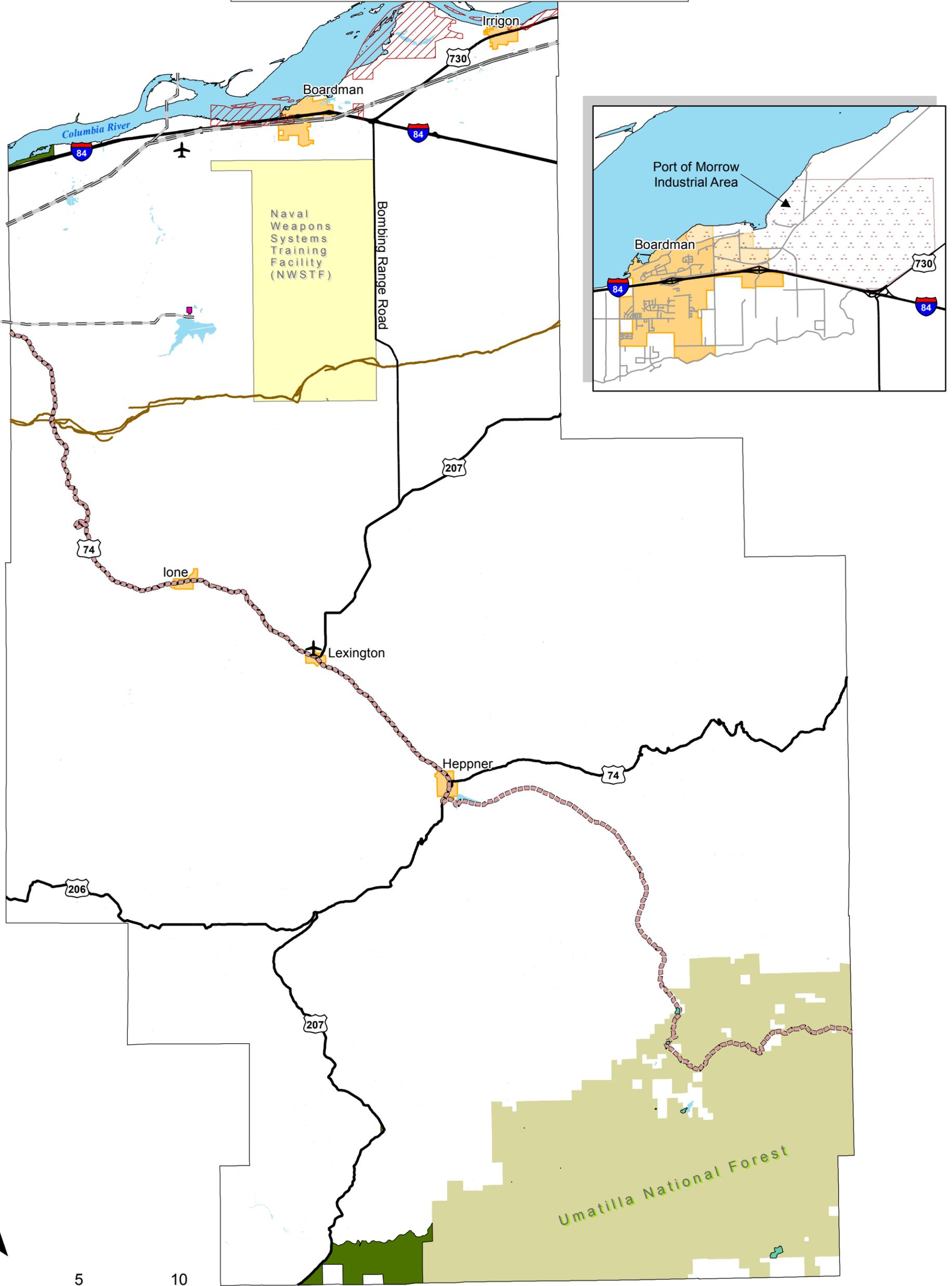
- Hospital
- Fire Station
- Law Enforcement
- Airport
- Dam
- Highway
- Railroad
- City Limits

October 2015
 Natural Hazard Mitigation Plan
 Map for Reference Use Only
 December 2016

- Rural Fire Protection Districts**
- Boardman
 - Irrigon
 - Heppner
 - Oregon Dept. of Forestry
 - Ione
 - S. Gilliam
 - Pilot Rock

Created by: Morrow County Planning Department

Morrow County Economic, Cultural, and Historic Assets



- ✈ Airport
- (CGS) Carty Generating Station
- Highway
- Umatilla National Forest Recreational Site
- - - Blue Mountain Scenic Byway
- ▨ National Wildlife Area/Refuge
- Oregon Trail
- County Park
- = 500 kVA Transmission Line
- City Limits

