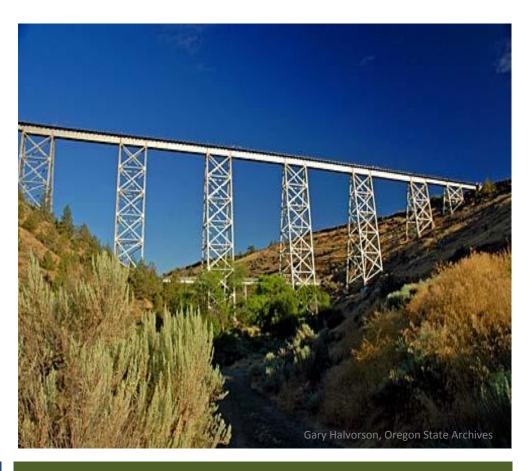
### City of Madras Plan Integration

### **Supporting Documents Report**



**July 2014** 

**Supporting Documents Report** 

Prepared for: The City of Madras

**Prepared by:** Community Planning Workshop

A Program of the Community Service Center







## SPECIAL THANKS & ACKNOWLEDGEMENTS

The City of Madras partnered with the University of Oregon Community Service Center in order to integrate the Madras Addendum of the Jefferson County Natural Hazards Mitigation Plan (NHMP) into the City of Madras Comprehensive Plan. This project included creating a new natural hazards chapter for the comprehensive plan, which addresses Statewide Planning Goal 7, Natural Hazards. The new chapter will be one regulatory tool that can help guide future land use decisions in regards to planning and better preparation for natural hazards in Madras.

This project was funded through a 2012 FEMA Pre-disaster Mitigation Grant (PDM 12). The City of Madras provided in-kind matches of staff time and miscellaneous supplies.

### **Technical Advisory Committee**

- Nick Snead, City of Madras Community Development Director
- Joe Krenowicz, City of Madras Chamber of Commerce
- Tom Jaca, Jefferson County Fire District
- · Allen Hurley, City of Madras Planning Commission Chair
- Robert Collver, City of Madras Planning Commission
- Walk Chamberlain, City of Madras City Council
- Royce Embanks- City of Madras City Council
- Gus Burril, City of Madras City Administrator
- Jeff Hurd, City of Madras Public Works Director

### The City of Madras Planning Commission

- Allen Hurley, Planning Commission Chair
- Joe Hessel, Planning Commission Vice Chair
- Robert Collver, Sr., Planning Commissioner
- Eldon Sasser, Planning Commissioner
- Joe Krenowicz, Planning Commissioner
- Bill Montgomery, Planning Commissioner

### The Department of Land Conservation and Development

- Scott Edelman, Central Oregon Regional Representative
- Marian Lahav, Natural Hazards Planner
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- Julie Foster, Grants Administrator, Community Service Center
- Julie Havens, Office Coordinator, Community Service Center

### **About the Community Service Center**

The Community Service Center (CSC), a research center affiliated with the Department of Planning, Public Policy, and Management at the University of Oregon, is an interdisciplinary organization that assists Oregon communities by providing planning and technical assistance to help solve local issues and improve the quality of life for Oregon residents. The role of the CSC is to link the skills, expertise, and innovation of higher education with the transportation, economic development, and environmental needs of communities and regions in the State of Oregon, thereby providing service to Oregon and learning opportunities to the students involved.

### **About the Oregon Partnership for Disaster Resilience**

The Oregon Partnership for Disaster Resilience (OPDR) is a coalition of public, private, and professional organizations working collectively toward the mission of creating a disaster-resilient and sustainable state. Developed and coordinated by the Community Service Center at the University of Oregon, the OPDR employs a service-learning model to increase community capacity and enhance disaster safety and resilience statewide.

### **About Community Planning Workshop**

Community Planning Workshop (CPW) is an experiential program within the Department of Planning, Public Policy and Management at the University of Oregon. Students work in teams under the direction of faculty and Graduate Teaching Fellows to develop proposals, conduct research, analyze and evaluate alternatives, and make recommendations for possible solutions to planning problems in Oregon communities. The CPW model is unique in many respects, but is transferable to any institution that desires to link pedagogy with community service.

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## CITY OF MADRAS PLAN INTEGRATION SUPPORTING DOCUMENTS REPORT

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### **INTRODUCTION**

The City of Madras partnered with the University of Oregon Community Service Center in order to integrate the Madras Addendum of the Jefferson County Natural Hazards Mitigation Plan (NHMP) into the City of Madras Comprehensive Plan. This project included creating a new natural hazards chapter for the comprehensive plan, which addresses Statewide Planning Goal 7, Natural Hazards. The new chapter will be one regulatory tool that can help guide future land use decisions in regards to planning and better preparation for natural hazards in Madras.

### **Supporting Documents**

This report includes documents that support the ideas and strategies of the natural hazards chapter. There are six different types of supporting documents included in this report. These are a memorandum from the Department of Land Conservation and Development (DLCD), case studies, public outreach memorandums, a Community Rating System memorandum, a GIS memorandum, and minutes from meetings throughout the project. Each supporting document section includes an introduction and implications. If applicable, methods, findings and the original document will also be noted.

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## THE DEPARTMENT OF LAND CONSERVATION AND DEVELOPMENT MEMORANDUM

This section summarizes the purpose and key implications for a memorandum from the Department of Land Conservation and Development (DLCD) regarding the Madras plan integration project. The complete DLCD memorandum is at the end of this section.

### **Purpose**

The purpose of this memorandum is for DLCD to provide the City of Madras and the CSC project associates with expectations for the plan integration process. In the memorandum, DLCD outlines the sections of Goal 7 that are relevant to the integration project. These sections include Section A, *Planning* and Section B, *Implementation*.

While DLCD does not expect "full integration" of the two plans, which would require the NHMP being absorbed into the comprehensive plan, DLCD does expect that the City of Madras will consider regularly incorporating natural hazards and their impacts into any future land use planning decisions.

The integration is expected to include action items from the Madras Addendum to the Jefferson County Natural Hazards Mitigation Plan (NHMP) as potential goals or policies in the revised natural hazard chapter. DLCD expects integration to result in a natural hazards chapter with a strong amount of relevant information from the NHMP.

### **Implications**

This memorandum sets the stage for the City of Madras and the plan integration process. Stating that the process should be as holistic as possible, DLCD expects the City of Madras to integrate as much NHMP information as possible into the revised natural hazards chapter. Moving forward past the timeline for the chapter, DLCD encourages the City of Madras to consider incorporating NHMP information into other planning documents such as transportation and public facilities plans.

### **Original Memo**



### Department of Land Conservation and Development Planning Services Division

635 Capitol Street NE, Suite 150 Salem, Oregon 97301-2540 Phone: (503) 373-0050 Fax: (503) 378-5518 www.oregon.gov/LCD

January 29, 2014

TO: Nick Snead, Community Development Director

City of Madras

FROM: Marian Lahav, Natural Hazards Planner

Lisa Peffer, Natural Hazards Planner Scott Edelman, Regional Representative

Oregon Department of Land Conservation and Development

CC: Josh Bruce, Director, Oregon Partnership for Disaster Resilience

Sarah Allison, Project Coordinator, Community Service Center

University of Oregon

RE: Integrating the City of Madras Comprehensive and Natural Hazard Mitigation Plans

First and foremost, the Oregon Department of Land Conservation and Development (DLCD) commends the City of Madras (City, Madras) for its leadership in integrating its Natural Hazard Mitigation and Comprehensive Plans. This proactive and holistic approach to protecting the City's people, property, and environment will serve as a model for other jurisdictions statewide. DLCD is excited to support the City and the Oregon Partnership for Disaster Resilience (OPDR) as you break new ground in Oregon land use planning.

DLCD has been asked and is pleased to provide guidance on its expectations for the planning process and the final product. We do so with the understanding that the primary deliverable under the scope of work between the City of Madras and OPDR is a "new Goal 7 Chapter" for the City's Comprehensive Plan and that a primary outcome of the public involvement process is to determine the manner in which the Natural Hazard Mitigation Plan (NHMP) and Comprehensive Plan will be integrated. We look forward to a smooth and collaborative process.

### Planning Process

Madras's planning process should be designed to meet all applicable state requirements for comprehensive plan amendments. Please submit the proposed amendment to DLCD for processing in accordance with Post-Acknowledgment Plan Amendment (PAPA) procedures.

With respect to Goal 7 in particular, DLCD will not consider the action of integrating the City of Madras's Comprehensive and Natural Hazard Mitigation Plans as being a response to new hazard information. Therefore, Goal 7 Requirements Section B, Response to New Hazard Information and Section C, Implementation will not apply.

Goal 7 Requirements Section A, *Natural Hazard Planning* and Section D, *Coordination* will apply to the extent relevant. In addition to the natural hazards identified in Section A, *Natural* 

January 29, 2014 Page 2 of 3

Hazard Planning, DLCD encourages the City of Madras to consider addressing any other natural hazards addressed in its NHMP in its Comprehensive Plan. Where some hazards addressed in the NHMP are not addressed in the Comprehensive Plan, we encourage the City to include a statement indicating the reason(s) in the Comprehensive Plan or public record. Where a hazard is addressed in both plans, the background information, policy direction, implementation measures, and maps contained in the two plans must be consistent.

We expect the City to consider the Goal 7 Guidelines, Section A, *Planning* and Section B, *Implementation*, and to document this consideration in a staff report, memo, meeting notes or within the Comprehensive Plan itself.

Pursuant to FEMA's December 2013 approval of Madras's Natural Hazard Mitigation Plan (NHMP, Plan) pending local adoption, please keep us apprised of any revisions made during the remainder of the approval process. Recognizing that status, we do not expect this project would re-open the NHMP. Our focus will be on how the information in the NHMP is integrated with the City's Comprehensive Plan.

#### Integration

Generally, there are two ways natural hazard mitigation plans are coordinated with comprehensive plans: adopting them by reference or appending them to the comprehensive plan. Integrating the NHMP into the Comprehensive Plan takes that coordination to a deeper level. Integration involves uniting the two documents in a holistic way, so that the background information, policies, implementation measures, and maps of the NHMP are consistent with and become fundamental constituents of the comprehensive plan. Ultimately, full integration would result in the NHMP being absorbed into the Comprehensive Plan such that the NHMP would not exist as a separate document, and its elements could be identified throughout the comprehensive plan.

#### Recommendations

We do not expect this project to result in "full integration" of the two plans. We do encourage the City to consider integration methods that will lead to and facilitate regular consideration and incorporation of natural hazards and their impacts as an integral element in land use planning and decision making.

Since the Comprehensive Plan includes or references transportation plans, public facilities plans, and other functional plans and documents, the City should include any related revisions to those documents in its Comprehensive Plan amendment proposal or provide for them, perhaps as recommendations for future action or implementation measures.

We encourage the City to consider integration methods that incorporate relevant NHMP information throughout the Comprehensive Plan. For example, the NHMP goals and mitigation actions could be included as Comprehensive Plan goals and implementation measures, respectively. We also encourage integration in the sense that the Comprehensive Plan is influenced by NHMP information. Examples that may or may not apply to the City of Madras:

 The location of a natural hazard might influence changes in areas to which development is directed, perhaps resulting in Comprehensive Plan Map amendments and corresponding zone changes. January 29, 2014 Page 3 of 3

 Information about the possible impacts of a natural hazard might result in an implementation measure recommending that development regulations be revised to better protect public health, safety, and welfare.

• Information about potential losses due to a natural hazard might influence revisions to economic development, housing, public facility, recreation or other policies.

In summary, we encourage the City of Madras to approach NHMP and Comprehensive Plan integration in as holistic a manner as feasible, incorporating and considering the influence of NHMP information throughout Comprehensive Plan, its related plans and documents. Your DLCD project team (Scott Edelman, Lisa Peffer, and Marian Lahav) is available to provide technical assistance at the City's request.

Again, we are impressed with the City of Madras's pioneering spirit and excited to support and collaborate with you on this project. Please feel free to contact Marian Lahav, primary point of contact for DLCD's project team (503-934-0024, <a href="mailto:marian.lahav@state.or.us">marian.lahav@state.or.us</a>) with any questions or concerns.

### **CASE STUDIES**

This section summarizes the purpose, methods and implications of the six case studies created by the Community Planning Workshop (CPW) team. The six case studies are Albany, OR; Newport, OR; Tillamook, OR; Greensburg, KS; Roseville, CA; and Yuma, AZ.

### **Purpose**

Researching case studies was one of the first steps for the CPW team in the plan integration process. The cities chosen represent best practices in hazard mitigation through voluntary policies, regulatory policies, and/or comprehensive plan structure.

The case studies were an important first step in the process because they provided concrete background information, and informed goals, policies and implementation measures created in the revised natural hazards chapter. The one-pagers also serve as informational material for Madras city staff.

### **Methods**

Every CPW team member researched one of the six cities chosen. After completing research for each city, the key points were written up and summarized in one page. Each one-pager presents the city population, an overview, information regarding the process and implementation of the city's natural hazards mitigation plan (NHMP), and lessons learned from the plan integration process in an easy-to-follow format.

Each case study was also presented to the Technical Advisory Committee at a meeting in Madras on February 27, 2014.

### **Implications**

Each case study provided valuable examples. The three categories that best served the CPW team in the development of the revised chapter were voluntary policies, regulatory policies, and comprehensive plan structure. Below are examples from each of the three categories:

- The Community Rating System (CRS) is an example of a voluntary policy best exhibited by Roseville, CA. The CRS is a voluntary and incentive based program run by FEMA. Cities admitted to the CRS program can earn points for various mitigation activities, which makes them eligible for discounts on flood insurance premiums for property owners in the special flood hazard area (SFHA). Roseville was the first CRS Class 1 community, which is the highest ranking. This example served as a starting point for the CRS goal in the revised natural hazards chapter.
- Greensburg, KS served as an example of a city using regulatory policies to avoid development in the floodplain. To manage flooding, Greensburg's comprehensive plan addresses specific locations for where infrastructure in the floodplain can be located. Vacant land in the floodplain is designated as

- open space for parks, outdoor recreation activities, and restoration projects. In addition, Albany, OR regulates new construction and remodeling in the floodplain. High-density developments are only allowed outside of the floodplain. Policies from these two cities served as a starting point for flood related goals, policies and implementation measures in the revised natural hazards chapter.
- Newport, OR serves as an example for comprehensive plan structure. The City's comprehensive plan has a natural features chapter, which lists the areas subject to geologic hazards with specific detail related to the geology of the land. The goals and policies section includes goals with the policies listed directly beneath them. In addition, the city comprehensive plan lists hazards associated with the county, and the history of these hazards. The format of the goals and policies, combined with the level of detail, helped inform the CPW team's format for the revised natural hazards chapter.

### **Complete Case Studies**

# Albany, OR

Encouragement and Regulation

City Population: 51,322

### Case Study Overview:

At the confluence of the Calapooia and Willamette Rivers, the City of Albany has experienced major flooding. Twenty-four percent of the land in Albany's Urban Growth Boundary is within the 100-year floodplain. The most recent major flood was the Willamette Valley Flood of 1996 that took place in January and February. Albany updated the Goal 7: Flood Hazards & Hillsides chapter of their Comprehensive Plan most recently in 2010.



### Process and Implementation:

- To address flooding and other natural hazards, the city uses their Natural Hazard Mitigation Plan (NHMP)
  to inform their Comprehensive Plan.
- Key elements added to the comprehensive plan chapter in 2010 include locating and constructing critical
  facilities including schools, hospitals, police, fire and other emergency responders in areas that minimize or
  eliminate flood damage.
- Albany's Comprehensive Plan also incorporates hazard planning into its housing needs projections. They do
  this by excluding development in areas with natural feature constraints including wetlands, steep slopes and
  floodways from the buildable lands inventory. This ensures that new development will not be built in
  susceptible areas.

### Lessons Learned

Albany uses a mix of encouragement and regulation to address hazards. Both encouragement and regulatory practices are addressed in the Goal 7: Flood Hazards & Hillsides chapter of their Comprehensive Plan through Policies and Implementation Methods.

Encouragement practices include:

- Workshops to provide information about flood management
- Participating in the National Flood Insurance Program's Community Rating System (CRS) program. Albany
  is currently a Class 6 CRS community providing a 20% discount on flood insurance premiums.
- Providing density bonuses permitting developers to increase the maximum allowable development on a
  property in exchange for helping the community achieve public policy goals.

### Regulation practices include:

Restricting new construction or remodeling of homes in floodways.

## Newport, OR

Comprehensive Plan Structure

City Population: 9,989

### Case Study Overview:

The Natural Features chapter of Newport's comprehensive plan discusses the various environmental issues that face the City of Newport. It states, "Where possible, sensitive or hazardous lands will be identified and policies will be developed to protect them. Where not known, procedures must be established to identify and protect these areas." The purpose of the chapter is to acknowledge areas that are environmentally sensitive or geologically hazardous and not to build in those areas.



### Process and Implementation:

- The Natural Features chapter lives within the larger Environment section, which also covers:
  - Forest Lands, Agriculture, Water Quality, Air Quality, Noise, Energy, Solid Waste, Wetlands, and Aggregate and Mineral Resources.
- The Natural Features chapter itself addresses a number of environmental issues around Geology, Earthquakes, Flood-prone Areas, and Ocean Shorelands. Ocean Beaches and Landslides are also considered under Ocean Shorelands.
- · Each environmental issue has background information, and are addressed through goals and policies.

# Lessons Learned

Newport's Comprehensive Plan:

- · Lists the geology and science of the land.
- Includes 2 goals with 7-9 policies under each goal.
- Lists the areas subject to geologic hazards including: Marine Terraces, Old Dune Areas, Sandpits and Active Dunes, Hillside Development Areas, Inland Mountainous Areas.

The chapter also lists and integrates natural hazards associated within Lincoln County and their history related to the hazard. These include: Earthquakes, Flood prone areas, Ocean Shorelands, Ocean Beaches and Landslides.

## Tillamook, OR

Comprehensive hazard mitigation planning through community involvement

City Population: 4,935

### Case Study Overview:

Tillamook has approximately 100 acres of land within the city that is susceptible to substantial flooding. Particularly bad floods in the 1990's led to an increase in local efforts to become a "disaster resilient community" and the organization of the Tillamook County Flood Control Group. These increased efforts successfully reduced property losses due to flooding disasters. This success was noted by the city after the 1998 flood, which resulted in just \$3 million of damages compared to the 1996 flood, which caused \$52 million in losses.



- Tillamook was awarded a Flood Mitigation Assistance (FMA) Planning Grant, with which it created the Tillamook Flood Mitigation Action Plan (an appendix of the Comprehensive Plan).
- The community, local businesses, and experts developed a Flood Mitigation Group (Project Steering Committee), which provided direction in the creation for a more comprehensive flood mitigation plan.
- The city initiated a coordinated effort with the County and State to promote the voluntary relocation of businesses located in the Floodway to other commercially and industrially zoned properties in the City.
- The City of Tillamook opted to voluntarily participate in the National Flood Insurance Program's Community Rating System for the purpose of reducing flood insurance premiums.
- The city put policies in place that prevented new development in hazard areas, and took into account measures to minimize downstream impacts and impacts on natural drainage.

### essons Learned

- The Tillamook Flood Mitigation Plan Steering Committee strengthened the process of flood mitigation through public participation, and opened Tillamook up to more opportunities for state and federal funding sources for related activities.
  - o The Tillamook Flood Mitigation Plan Steering Committee provided direction in the creation for a more comprehensive flood mitigation plan, and identified stakeholders for interviews, reviewed and edited documents, and generated plan goals and action items along with City Planners.
- Tillamook coordinated mitigation planning efforts with the county and state, thus resulting in a Comprehensive Plan that successfully decreased flood damage costs, and provided more funding opportunities.
- The City of Tillamook's Comprehensive Plan directly references the Tillamook Flood Mitigation Action Plan, and includes the document in its appendix.

## Greensburg, KS

Integrating mitigation into comprehensive planning

City Population: 770

### Case Study Overview:

Disaster struck Greensburg, Kansas on May 4, 2001. On that day, a Category 5 tornado struck the small town in southwestern Kansas. Within minutes, the city was almost completely destroyed. Eleven people died and about 90 percent of all structures in the town sustained severe damage or were destroyed.



### Process and Implementation

- Immediately following the storm, the city lost population as people without homes left the city. After the disaster, officials and residents in Greensburg determined they wanted their recovery to emphasize resilience and sustainability. The City led a recovery planning process in cooperation with residents.
- First, the City and residents created the Long-Term Community Recovery Plan, which identified priorities
  such as establishing a Sustainable Development Resource Office to help distribute information. The
  Recovery Plan informed the City's Sustainable Comprehensive Plan. The new comprehensive plan
  emphasized storm preparedness and outlined new land-use guidelines within the floodplain.
- Greensburg committed to creating a new future for their city by making hazard mitigation an integral part of their comprehensive planning process.

## Lessons Learned

- Destructive natural events can be powerful reminders of the importance of planning for natural hazard mitigation and preparedness.
- Hazard mitigation is an important aspect in the City's updated land-use regulations. The City prohibited rebuilding in hazard areas like the floodplain.
- Public input was an important part of creating both the Long-Term Recovery Plan and the Sustainable Comprehensive Plan. Public participation is both an opportunity for educating the public and allowing meaningful input for planning documents.
- The City's Sustainable Comprehensive Plan provides innovative examples for stormwater management and floodplain protection as methods of hazard mitigation.

## Roseville, CA

Implementing voluntary policies to be proactive against flooding

City Population: 122,060

### Case Study Overview:

After three major floods in 1983, 1986, and 1995, the City of Roseville began to take aggressive measures to mitigate any foreseeable damage related to flooding in their city. After the Disaster Mitigation Act of 2000, the City of Roseville was required to create a natural hazard mitigation plan if they wanted to receive hazard mitigation assistance funding. The City decided to develop a multi-hazard mitigation plan and to participate in FEMA's Community Rating System (CRS) at the highest achievable level.



- The City created a multi-hazard mitigation plan that addressed both human-caused hazards and all natural hazards that the city could potentially face. To create a strong multi-hazard mitigation plan, the City made sure to coordinate this plan with the General Plan, a planning document that incorporates all planning related information, policies, and implementation strategies.
- A steering committee consisting of city staff, residents, and key stakeholders, worked with the Planning Department and their consultants to create the multi-hazard mitigation plan. The plan emphasized continued participation in the Community Rating System and prescribed plan maintenance.
- Prescribed plan maintenance is a proactive approach that locks the city into updating the plan every few years. It also requires updates during the same time that the General Plan is being updated.

## essons Learnec

- Taking a proactive approach has led to better planning in Roseville. When the General Plan gets updated, the multi-hazard mitigation plan must be updated as well. This allows the two documents to work together through better land use planning and reduces the damage a flood can cause.
- As the first Community Rating System Class 1 community, the City of Roseville has participated in almost all of the 18 activities available for points. By completing different activities as a city, property owners in the special flood hazard areas receive a discount on their flood insurance premiums.
  - o In Roseville, these property owners receive a 45% discount rate on their flood insurance premiums, which creates a \$792 savings annually.

The City of Roseville took a voluntary approach by implementing Community Rating System activities. While several of these activities might include regulatory procedures, the city has successfully reduced risk to property and life my implementing these measures.

## Yuma, AZ

Incorporating Multi-Jurisdictional policy into Local Community Plans

City Population: 95,429

### Case Study Overview:

In 2004, Yuma County consolidated the Hazard Mitigation plans from six jurisdictions into one county plan, the Yuma County Multi-Jurisdictional Hazard Plan (MJHP). The purpose of the MJHP is to identify natural hazards that impact the county, and which of those hazards specifically affect each community. Natural hazards include but are not limited to floods, earthquakes, hurricanes, and windstorms. The MJHP is meant to assess the vulnerability and risk posed by hazards, and to develop strategies for mitigation of those identified hazards



### Process and Implementation:

- The City of Yuma has an extensive history of developing and implementing hazard mitigation plans (with a focus on earthquakes and flood mitigation) to reduce the loss of human life and property.
- The Federal Emergency Management Agency (FEMA) recognized Yuma's success and selected it to join Project Impact, a nationwide program aimed to help build disaster resistant communities.
- In 2004-2005 Yuma County coordinated with multiple jurisdictions to create the Yuma County Multi-Jurisdictional Hazard Plan.
- The primary goals of the plan are to (1) identify natural hazards that impact all communities (2) assess vulnerabilities to and risks posed by a natural hazards and (3) develop mitigation strategies.
- Following FEMA approval in 2011, each jurisdiction adopted the Yuma County Multi-Jurisdictional Hazard Plan.

## Lessons Learned

- Creating a multi-jurisdictional hazard plan allowed county to ensure consistent hazard information across jurisdictions.
- The county strategy was to combine and condense the Hazard Mitigation plans from six different
  participating jurisdictions into one plan, the Yuma County Multi-Jurisdictional Hazard Plan.
- Many policies from the Multi-Jurisdiction Hazard Mitigation Plan are incorporated into the city of Yuma's Safety Elements chapter in the General Plan.
- The MJHP includes a description of existing management strategies and past mitigation efforts, as well as hazard evaluation and analysis.
- One element of the plan was to create an action plan which includes objectives and policies designed to
  achieve the goal of protecting city residents and businesses from hazards.
- The goal, objectives, and policies of the General Plan are consistent with those of the hazard mitigation plan.
   More importantly, they provide even further support for the mitigation actions and projects specific to the City of Yuma as proposed in the county-wide Multi-Jurisdictional Hazard Mitigation Plan.
- Continued integration of the Yuma County Multi-Jurisdictional Hazard Mitigation Plan into other communities in Yuma County plans is encouraged.

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### **PUBLIC OUTREACH**

This section provides information pertaining to public outreach including key stakeholder interviews, an online survey, and a public forum. Interview and survey questions and responses discussed below are listed at the end of this section.

### **Purpose**

The interviews, survey and public forum provided a variety of avenues to better understand public awareness of natural hazard issues and the types of policies that had public support. In addition, understanding how to address public attitudes and concerns was important in the creation of the goals, policies, and implementation measures for the revised natural hazards chapter.

The public outreach sections summarize the purpose, methods, limitations, findings, and key implications for the stakeholder interviews, online survey, and public forum.

### **Methods**

### **Key Stakeholder Interviews**

The first effort to reach out to the public was through key stakeholder interviews. Each Community Planning (CPW) student on the plan integration team conducted 2-3 phone interviews with influential decision makers such as politicians and business owners. A total of twelve 15-30 minute interviews were conducted throughout the month of March. The purpose of the key stakeholder interviews was to assess attitudes and concerns regarding knowledge and understanding of:

- Natural Hazard Mitigation Plans (NHMPs)
- Comprehensive Plans
- Potential ordinance changes resulting from the integration of the two documents.

The interviews also assessed support for mitigation policies and actions that the City might take. The answers from the key stakeholder interviews also informed questions for the online survey.

### **Online Survey**

The second public outreach effort was the online survey. The purpose of this survey was to ask questions that expanded upon the answers from the key stakeholder interviews, and to open up the questions to the general public in Madras. The survey was live from March 20, 2014 until April 21, 2014, and a total of 27 respondents took the survey.

The CPW team used multiple strategies to advertise the survey. The survey link was sent to the Technical Advisory Committee (TAC), which is comprised of local business and community leaders and politicians. The team requested that the TAC send the survey link to their community and networks. In addition, the CPW team

posted a link to the survey on the City of Madras website and Madras residents were directed to that link through a notice on their sewer bill. People were also invited to take the survey at a public forum in Madras on April 16, 2014.

The survey asked questions about participant information, educational hazard information, policies regarding residential vs. commercial properties, and new vs. existing development.

#### **Public Forum**

The CPW team organized a public forum in the Madras City Council Chambers on April 16, 2014 from 5:30-6:45pm.

In order to attract as many residents of Madras as possible, the team advertised the forum through several mediums. First, the CPW team included the forum announcement in the introduction for the online survey that was open from March 21, 2014 to April 21, 2014. In coordination with the city staff, the team also created local TV, radio, and newspaper ads; developed and distributed a mailed flyer to all residents in the floodplain; and invited the Technical Advisory Committee (TAC) to attend, bring guests, and inform any groups with whom they had affiliations.

Ten people attended the public forum. The attendees included:

- A representative from the Department of Land Conservation and Development (DLCD)
- Local residents
- Local business owners
- A member from the Chamber of Commerce
- Planning Commission members
- A City Council member
- A member from Fire District #2

The format for the public forum was an open house with several information and feedback stations. Nick Snead, the Community Development Director for the City of Madras, also made a brief presentation.

- A welcome station that oriented the guests to the forum format.
- A table with information about the hazards that Madras faces and benefits
  of mitigation. This station included information about the vulnerability,
  probability, and risk that the city and county faces; a draft of the team's
  natural hazard inventory; and a list of action items from the Jefferson
  County Natural Hazard Mitigation Plan Madras Addendum.
- A mapping activity station that used the Flood Insurance Rate Map (FIRM) and an aerial photograph of Madras. At this station, attendees marked on the FIRM where they owned property and what natural hazards they face on that property.

- A policy barometer station that included a scale from voluntary to regulatory with policies written at different spots on the scale. Attendees were encouraged to write their own policies on post-its and/or post stickers in green, blue, and black to show support, neutrality, or opposition towards a policy.
- A survey station where the CPW team set out two computers for people to take the online survey.
- An interview station where guests had a chance to answer questions and be recorded for the CPW team's educational video.

### Limitations

Since the survey was not designed to be statistically valid, the results cannot be generalized across the population. The low response rate was not entirely unexpected, since planning and thinking about natural hazards is not something that typically turns out a large response unless it is immediately after a natural disaster. The survey could only be responded to online, which limited responses from residents who could not access a computer. Another limitation to note is the possible differences in the responses we received before and after the public forum. The responses we received at the public forum were from attendees who had just been given more information about hazards.

### **Key Findings**

### The role of the City

Based on the key stakeholder interviews, the online survey, and the public forum, the CPW team heard that the role of the city is to educate residents in regards to all natural hazards. According to public outreach, the City needs to reach out to the public because not everyone understands the risks that Madras faces in terms of natural hazards. Several responses from the outreach efforts indicated that it is up to the City to publish resource materials and answer questions about natural hazard preparedness. Overall, responses indicated that more educational material and information would be helpful, and would better enable private citizens to take action on their own.

### Residential vs. Commercial Property

Through the public outreach efforts, the CPW team found that homeowners and business owners should not be treated differently. Development for both residential and commercial property should be held to the same standards for hazard mitigation preparedness. Similarly, respondents to the public outreach effort agree that new development for both businesses and homes should be held to higher standards than currently exists.

### Incentives vs. Regulation

The CPW team tried to gauge opinions on whether the City should encourage private action to mitigate hazards, and whether the City should penalize property owners that do not proactively address natural hazards. Generally, the CPW team

heard that residents would support city policies that encourage voluntary action of private citizens, but would not support policies that penalize property owners who do not take proactive approaches for natural hazards.

### **Implications**

#### **Hazard Outreach and Education**

A common theme throughout multiple questions was an expressed need for more access to information on hazards and hazard mitigation. This supports the City's priority to make education and outreach a top goal, and suggests that the City should be dedicated with these measures. Public outreach and education will likely be well received from the community. If it is done effectively, outreach and education could lead to a more aware, prepared community that is more supportive of proactive hazard mitigation measures.

### **Internal Inconsistency**

The CPW team observed a value contradiction throughout the public outreach process. Many respondents indicated that they want the City to take more action and put a solid and proactive framework in place, but did not want the City to actually require action of private citizens nor set existing development to higher standards or codes. This attitude could indicate a need for the City to have an emphasis on education and the public awareness component of hazard mitigation. Raised public awareness of the importance of hazard mitigation measures would be particularly important. This could be central to gaining public support for taking proactive measures and putting more regulations in place.

### **Incentives and Regulations**

Given the interview responses, the City is likely to find more support for measures that incentivize public action rather than set firm regulations in place. The City will also likely find more general public support for measures that the City can take that do not require private citizen action.

In regards to policies that relate to development, the City may have public support for setting higher standards for new development. It is probable that that will not be the case for existing development however, particularly if the higher standards require costly measures. If the City sees a need to increase regulations for existing development, active public education could offer a limited solution to gaining public support.

### **Conclusion**

The CPW team was able to receive valuable comments and feedback through interacting with various residents, property owners, and local officials throughout the public outreach process. The findings from the public outreach process were generally consistent throughout the key stakeholder interviews, the online survey, and the public forum.

The key findings and implications listed above were important as the CPW team developed goals, policies, and implementation measures for the natural hazards chapter. In order to create a chapter that is most useful for the city, it is important to balance the goals, policies, and implementation measures with the concerns that the CPW team has heard from the public.

### **Public Outreach Documents**

### **Key Stakeholder Phone Interviews**

### **Phone Interview Questions: Interviewer Copy with Prompts**

- 1. When you think of Natural Hazards in Madras, what do you think of first?
  - a. Do you feel like there is an urgent need for the city to address natural hazard concerns?
  - b. If you had to find information about Natural Hazards in Madras, where would you look? (examples: the city's website, city hall)
    - a. Do you know where to find the city's Natural Hazard plans and policies?
    - b. Are you familiar with any city hazard policies?
- 2. From your perspective, whose responsibility is hazard planning in Madras?

  Prompt: is it the responsibility of the city or individual property and business owners?

The following question asks your thoughts on homeowner responsibility.

- 3. What actions or responsibilities do you think residential property owners or homeowners should take if they know their property or home is at risk of a natural hazard? Is this their responsibility?
  - a. Do you think the responsibilities are different for property owners who have not yet built on their properties and homeowners who currently live in homes at risk of natural hazards? Example to get them thinking: Albany, Oregon holds homeowners who live in the floodplain and want to remodel to a higher standard and don't allow certain development because it can have an impact on the rest of the community.

The next question addresses your thoughts regarding commercial property owners.

- 4. What actions or responsibilities do you think commercial property owners or business owners should take if they know their property or business is at risk of a natural hazard? Is this their responsibility?
  - a. Do you think the responsibilities are different for commercial property owners who have not yet built on their properties and property owners who currently have businesses at risk of natural hazards?

The following question asks your thoughts on the City of Madras' responsibilities.

5. What actions or responsibilities do you think the City of Madras should take in regards to residential and commercial property owners whose properties are at risk of natural hazards?

- a. Should the city's approach be more proactive in addressing natural hazards? Prompt: Provide incentives like the community rating system where the you will get discounts on your flood insurance
- b. Does the city have a responsibility beyond informing property owners of their risk?
  - i. Would you support city policies that encourage property owners to take proactive approaches for natural hazards? Why/Why not?
  - ii. Would you support city polices that penalize property owners who do not take proactive approaches for natural hazards? Why/Why not? Example: Fines
  - iii. Are the city's responsibilities different regarding homeowners or business owners?
- c. Do you think the city should promote a voluntary relocation incentive program for commercial properties at risk of natural hazards? Example: System Development Charges paid for by the city if you moved. These charges cost thousands of dollars.

### **Online Survey**

### **Survey Instrument**

The City is undertaking an effort to update the comprehensive plan to more effectively address natural hazards. As part of this effort, the city is interested in the public's perception and knowledge of natural hazards. This survey should take about 10 minutes and results will remain anonymous. Your input is valuable and will be analyzed and presented during a public meeting on April 16th in the Madras City Hall Council Chambers at 5:30 pm.

		Not very urgent	or the following natura Somewhat urgent	Neutral	Urgent	Very urgent
Flood		0	0	0	0	0
Wildfire						
Drought						
Windstorm						
Winter Storm						
Landslide						
Earthquake						
Volcano						
City of Madras Federal, State,	of the Natural Haz Comprehensive Pl County, or City Ag		ation:			
Other. Please o	describe.					
How would you li check all that ap		o be made availab	ole about taking long-t	term precautions	about natural haz	ards? Please
Online video						
Brochure						
_	onal meetings					
Public informati	_					
Public informati	-					
	-					
Local TV or new	-	ion				

	Not at all Important	Somewhat Unimportant	Neither Important nor Unimportant	Somewhat Important	Very Importan
omeowners (i.e. owner occupied esidence)	0				
ental Property Owners					
esidential renters			0 0		
usiness Owners (i.e. owner cupied business)	0		$\circ$	$\circ$	
ommercial Property Owners (i.e. //n property for lease or rent)	0		$\circ$	$\circ$	
ommercial property renters	0				
overnment (i.e. public property wners)	0	0	$\circ$	$\circ$	$\circ$
s they relate to homeowners a	Strongly Disagree	Owners?  Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
operty owners locating in high sk areas for any hazard.					
ne city should help relocate disting homes out of the codway specifically.	0	$\circ$	$\circ$	$\circ$	$\circ$
ew development should be held to gher standards of hazard eparedness <b>for all hazards</b> than isting development.	0	0	0	0	
wners?			Neither Agree nor		
	Strongly Disagree	Disagree	Disagree	Agree	Strongly Agree
			_		_
operty owners locating in high		$\circ$			
operty owners locating in high ik areas for any hazard. ne city should help relocate isinesses out of the floodway		0	0	0	0
operty owners locating in high isk areas for any hazard. The city should help relocate usinesses out of the floodway opecifically.	0	0	0	0	0
he city should discourage roperty owners locating in high risk areas for any hazard.  he city should help relocate usinesses out of the floodway pecifically.  ew development should be held to higher preparedness standard an existing development for all areas of the rest of the standard and existing development for all areas of the standard	0	0	0	0	0
roperty owners locating in high sk areas for any hazard.  the city should help relocate usinesses out of the floodway pecifically.  ew development should be held to higher preparedness standard	0	0	0	0	0
operty owners locating in high the areas for any hazard.  The city should help relocate sisinesses out of the floodway becifically.  The development should be held to higher preparedness standard an existing development for all azards.	ss owners be treated	differently in te	orms of potential polici	es or incentives	that address
operty owners locating in high is areas for any hazard. The city should help relocate issinesses out of the floodway secifically.  The development should be held to higher preparedness standard an existing development for all szards.	ss owners be treated	differently in te	ms of potential polici	es or incentives	that address
operty owners locating in high six areas for any hazard.  he city should help relocate usinesses out of the floodway pecifically.  ew development should be held to higher preparedness standard an existing development for all azards.  hould homeowners and busine azards generally?	ss owners be treated	differently in te	ms of potential polici	es or incentives	that address
roperty owners locating in high sk areas for any hazard. The city should help relocate usinesses out of the floodway pecifically.  ew development should be held to higher preparedness standard an existing development for all azards.  thould homeowners and busine azards generally?  Yes	ss owners be treated	differently in te	orms of potential polici	es or incentives	that address
operty owners locating in high six areas for any hazard.  he city should help relocate usinesses out of the floodway pecifically.  ew development should be held to higher preparedness standard an existing development for all azards.  hould homeowners and busine azards generally?  Yes	ss owners be treated	differently in te	ms of potential polici	es or incentives	that address

Please indicate your level of support for efforts to improve natural hazard planning in the City of Madras through strategies like those outlined in the above questions and restated below • City policies that discourage property owners from locating in any high risk hazard area. City policies that help homes and businesses relocate out of the floodplain specifically. City policies that hold new development to higher hazard preparedness standards than existing development for all I support these efforts and would participate in local initiatives. I support these efforts, but would not participate in local initiatives. I support some, but not all of the efforts. I do not support these efforts, but would not actively oppose local initiatives. I do not support these efforts and would actively oppose local initiatives. I am unsure about whether I support or do not support these efforts. Do you live, work, or own property in any of the following hazard areas? Mapped 100-year flood zone  $\Theta$ Wildfire area Other hazard area Do you have insurance to guard your home, business or property against extreme natural hazards? Yes O No Do not know I do not need natural hazard insurance for my property Are you a City of Madras property owner or renter? I own my home or business in Madras I rent my home or business in Madras I live and work outside the City of Madras

Are there any other comments you woul	ld like to make regarding natural hazards in Mac	dras? Please describe below.

### **Complete Survey Results**

1. How urgent do you think the risks to Madras are for the following natural hazards?							
Question	Very urgent	Total Responses					
Flood	2	5	1	14	5	27	
Wildfire	4	4	2	10	6	26	
Drought	4	3	11	7	2	27	
Windstorm	5	3	10	7	2	27	
Winter Storm	3	2	11	8	2	26	
Landslide	14	5	8	0	0	27	
Earthquake	11	5	10	1	0	27	
Volcano	14	4	8	1	0	27	
<ol> <li>If you needed information regarding natural hazards in Madras, where would you look? Please select all that apply.</li> <li>Response</li> </ol>							
that apply.					Response	%	
that apply.  City of Madra	as website				Response 16	% 59%	
					•		
City of Madra					16	59%	
City of Madra Online weath					16 10	59% 37%	
City of Madra Online weath Facebook	er websites				16 10 1	59% <b>37%</b> 4%	
City of Madra Online weath Facebook E-mail Local TV or no	er websites ewspaper	ral Hazard Mitigatio	on Plan		16 10 1 3	59% 37% 4% 11%	
City of Madra Online weath Facebook E-mail Local TV or no	er websites ewspaper		on Plan		16 10 1 3 10	59% 37% 4% 11% 37%	
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City of Madra Online weath Facebook E-mail Local TV or no Madras section City of Madra Federal, State	er websites  ewspaper  on of the Natur  as Comprehens  e, County, or C	sive Plan			16 10 1 3 10 11 8	59% 37% 4% 11% 37% 41% 30%	

### Other:

- local radio stations
- Ask someone local who knows
- Chamber of Commerce

3. How would you like information to be made available about taking long-term precautions about natural hazards? Please check all that apply.

	Response	%
Online video	10	36%
Brochure	14	52%
Public informational meetings	7	24%
Local TV or newspaper	17	64%
Social media	6	24%
I do not want or need this information	2	8%
Other	2	8%

### Other:

- Send to my email. I can select my information from that
- not sure

4. How important is it for the following types of property owners or property occupants to take long-term precautions against the impacts of
natural hazards?

Haturai Hazarus (	Not at all Important	Somewhat Unimportant	Neither Important nor Unimportant	Somewhat Important	Very Important	Total Responses
Homeowners (i.e. owner						
occupied residence)	0	0	0	10	17	27
Rental Property Owners	0	0	0	11	13	24
Residential renters	1	0	0	18	6	25
Business Owners (i.e. owner occupied business)	0	0	1	8	16	25
Commercial Property Owners (i.e. own property						
for lease or rent)	0	0	1	9	15	25
Commercial property reptors	1	0	1	15	8	25
Commercial property renters	1	U	1	15	ŏ	25
Government (i.e. public property owners)	1	0	1	9	15	26

5. This question applies to residential property only. Do you agree or disagree with the following strategies for various hazards as they relate to homeowners and rental property owners?

, and the second	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Total Responses
The city should discourage						
property owners locating in						
high risk areas for any hazard.	3	6	7	7	3	26
The city should help relocate						
existing homes out of the						
floodway specifically.	5	8	7	4	2	26
New development should be						
held to higher standards of						
hazard preparedness for all						
hazards than existing						
development.	1	0	3	13	9	26

6. Do you agree or disagree with the following strategies as they relate to business owners and commercial property owners?  Neither					wners?	
	Strongly		Agree nor		Strongly	
Question	Disagree	Disagree	Disagree	Agree	Agree	<b>Total Responses</b>
The city should discourage						
property owners locating in high						
risk areas for any hazard.	3	7	7	6	4	27
The city should help relocate						
businesses out of the floodway						
specifically.	5	10	6	5	1	27
New development should be						
held to a higher preparedness						
standard than existing						
development for all hazards.	3	0	3	13	8	27

# 7. Should homeowners and business owners be treated differently in terms of potential policies or incentives that address hazards generally?

	Response	%
Yes	6	23%
No	12	46%
Unsure	8	31%
Total	26	100%

8. Please indicate your level of support for efforts to improve natural hazard planning in the City of Madras through strategies like those outlined in the above questions and restated below

City policies that discourage property owners from locating in any high risk hazard area.

City policies that help homes and businesses relocate out of the floodplain specifically.

City policies that hold new development to higher hazard preparedness standards than existing development for all hazards.

	Response	%
I support these efforts and would participate in local initiatives.	7	26%
I support these efforts, but would not participate in local initiatives.	0	0%
I support some, but not all of the efforts.	15	56%
I do not support these efforts, but would not actively oppose local initiatives.	2	7%
I do not support these efforts and would actively oppose local initiatives.	1	4%
I am unsure about whether I support or do not support these efforts.	2	7%
Total	27	100%

9. Do you live, work, or own property in any of the following hazard areas?				
	Yes	No	Unsure	<b>Total Responses</b>
Mapped 100-year flood zone	11	14	2	27
Wildfire area	6	13	8	27
Other hazard area	6	8	5	19

#### 10. Do you have insurance to guard your home, business or property against extreme natural hazards? Response Yes 8 30% No 9 33% Do not know 9 33% 1 4% I do not need natural hazard insurance for my property Total 27 100%

11. Are you a City of Madras property owner or renter?				
	Response	%		
I own my home or business in Madras	19	70%		
I rent my home or business in Madras	2	7%		
I live and work outside the City of Madras	6	22%		
Total	27	100%		

12. Are there any other comments you would like to make regarding natural hazards in Madras? Please describe below.

The city should discourage property owners locating in high risk areas for "any hazard". New development should be held to higher standards of hazard preparedness for "all hazards" than existing development.

The verbiage in parathesis' above are way to inclusive of almost any/all hazards. If it was related to flooding and wilfire the question and responses would be more relevant to your objective. If all was included we would be saying no to any business expansion, business improvement or home sale or improvement. All because "any/all hazards" including earthquake and volcano eruption would preclude any reason to build, expand or improve. This poll should be addressing only flooding and possibility wildfire. I am willing to take a chance on everything else other than flooding and wilfire

Willow Creek could be mitigated against flooding which would reduce the footprint of the FEMA Floodplain map. Countys and Local agencies should be informed of available funding opportunities and/or contacts to be able to complete mitigation efforts to reduce the risk of flooding.

Not only should the city be concern with property but also food and water for those without power. Any progress toward these goals is very welcome

Hard to answer questions when I don't know if I am located in a hazard area. Maybe add a map of the city so we can see where we are located (and be educated at the same time...).

Five years ago the City tried to rezone the floodway in terms of new development. I agree it's a smart thing to protect the City but at the same time I don't want policies that are so restrictive that I can't do anything. I have had my business in the floodway for 16 years and it's been fine so by regulating uses you lose out on economic development. I think the City should address Willow Creek and make sure it's cleaned out but if the issues cannot first be solved with environmental solutions then we need to use engineering solutions. I also think the flood maps need to be redone.

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#### **COMMUNITY RATING SYSTEM MEMORANDUM**

The purpose of this section is to summarize a memorandum written from the CPW plan integration team to Nick Snead, the Community Development Director in Madras in order to provide the City with information regarding the Community Rating System (CRS). For more detail, see the included CRS memorandum and the *Highlights of the Community Rating System* handout.

#### **Purpose**

The purpose of this memorandum was to provide the City of Madras with supplemental information regarding the Community Rating System (CRS). The second goal in the flood section of the natural hazards chapter proposes that the City of Madras become a CRS Class 6 community by 2014. CRS is a program that offers cities the opportunity to earn a discount on local flood insurance premiums through flood mitigation and educational activities.

## **Findings**

The class rating in the CRS program is based on points, which can be earned through a variety of activities (see *Highlights of the Community Rating System* for more details). The City of Madras is currently engaged in some of these activities, and need only participate in the program for those activities to be acknowledged. The integration of the Natural Hazard Mitigation Plan into the comprehensive plan and associated products addresses additional activities. Further activities can be pursued by the City to increase their rating. Each activity can earn a range of points, depending on the details of the actions taken.

## **Next Steps**

Several of the action items in the Madras Addendum are large infrastructure projects that are either ongoing or deferred. In addition, the goals, policies, and implementation measures listed in the revised natural hazards chapter are large undertakings that will take several years to complete. With this in mind, the tenyear timeline to achieve a CRS Class 6 rating is do-able but must begin promptly.

To become a Class 6 community by 2024, Madras must begin the processes of appointing a CRS coordinator, and develop a plan for the allocation of resources to maintain the coordinator's position. Following the completion of this step, the coordinator will apply for admittance into the CRS program. Once this step is finalized, the coordinator and FEMA will come up with a more accurate and detailed description of the number of points that Madras can receive from its current initiatives, followed by a description of future projects that will steer the city in the direction of becoming a Class 6 community by 2024. While several projects may take more than ten years to complete, by the time the ten-year "deadline" is up, Madras can have achieved at least a CRS class 6 rating, and be on the path to an even higher rating, providing greater flood insurance premium discounts to residents.

## **Community Rating System Memorandum**

Date: May 21, 2014

To From SUBJECT Nick Snead, Community Development Director Community Planning Workshop Team MADRAS COMMUNITY RATING SYSTEM STATUS

#### **PURPOSE**

The purpose of this memorandum is to provide the City of Madras with information regarding the Community Rating System (CRS) program. This memorandum provides supplemental information to the second goal in the flood section of the natural hazards chapter proposing that the City of Madras become a CRS Class 6 community by 2024. CRS is a program that offers cities the opportunity to earn a discount on local flood insurance premiums through flood mitigation and educational activities.

#### **FINDINGS**

The class rating in the CRS program is based on points, which can be earned through a variety of activities (see the attached *Highlights of the Community Rating System* for more details). The City of Madras is currently engaged in some of these activities, and need only apply for the program for those activities to be acknowledged. The integration of the Natural Hazard Mitigation Plan into the comprehensive plan and associated products addresses additional activities. Further activities can be pursued by the City to increase their rating. Each activity can earn a range of points, depending on the details of the actions taken.

The National Flood Insurance Program's Community Rating System *Coordinator's Manual*, which can be found online, details the activities needed to be completed to earn the maximum number of points in each activity. The one-page pamphlet prepared by the CPW team, *Highlights of the Community Rating System* displays the average number of points for each category. The average number of points is based off of participating cities' average points earned for each activity.

#### **Current Activities**

Based on the information that the CPW team has regarding the City of Madras' current flood mitigation projects, the team understands that the City has periodically cleaned out vegetation and debris from Willow Creek. This activity falls under CRS Series 540: Drainage System Maintenance. There is a range of points from 0 to 330 for this activity, with the average city earning 232 points.

Using the information currently available to the CPW team, the points that the City of Madras would earn in the drainage system maintenance category would mean that Madras would enter into the CRS at a Class 10. A Class 10 community does not receive a discount for insurance premiums in the special flood hazard area (SFHA).

## **Plan Integration Opportunities**

If the CPW team's recommendations in the revised natural hazards chapter are fully implemented along with the action items listed in the Madras Addendum of the *Jefferson County Natural Hazard Mitigation Plan*, the City of Madras will be able to achieve at Class 6 rating at the very least. A majority of the implementation measures in the revised natural hazards chapter flooding section directly correlate to CRS categories. This means that the City of Madras has an opportunity to set itself up to participate in all CRS categories for points over the next several years. See *Highlights of the Community Rating System* for a general sense of the different categories in which the City of Madras can earn points.

Becoming a Class 6 community means that property owners with flood insurance in the SFHA will receive a 20% discount on their flood insurance premiums thanks to the efforts of the City. Residents with flood insurance, but without property in SFHA will receive a 10% discount on their flood insurance premiums if Madras achieves a Class 6 rating.

#### **NEXT STEPS**

Several of the action items in the Madras Addendum are large infrastructure projects that are either ongoing or deferred. In addition, the goals, policies, and implementation measures listed in the revised natural hazards chapter are large undertakings that will take several years to complete. With this in mind, the tenyear timeline to achieve a CRS Class 6 rating is do-able, but must begin promptly.

To become a Class 6 community by 2024, Madras must begin the processes of appointing a CRS coordinator, and develop a plan for the allocation of resources to maintain the coordinator's position. Following the completion of this step, the coordinator will apply for admittance into the CRS program. Once this step is finalized, the coordinator and FEMA will come up with a more accurate and detailed description of the number of points that Madras can receive from its current initiatives, followed by a description of future projects that will steer the city in the direction of becoming a Class 6 community by 2024. While several projects may take more than ten years to complete, by the time the ten-year "deadline" is up, Madras will have achieved at least a CRS class 6 rating, and can be on the path to an even higher rating, providing greater flood insurance premium discounts to residents.

## Highlights of the Community Rating System One-Pager

## HIGHLIGHTS OF THE **COMMUNITY RATING SYSTEM**



Summary created for the City of Madras

#### Lowering flood insurance prices through mitigation

The Community Rating System (CRS) is a voluntary federal program that rewards cities taking initiative to reduce the impact of flooding in their community. Participating cities can earn lower flood insurance premiums with the National Flood Insurance Program. CRS identifies 18 actions around flood mitigation and community education that can earn points to qualify a city for a corresponding class. Each class rating has a designated discount in flood insurance premiums available to all property owners within the flood plain.

Table 1 (below) shows the relationship between the CRS class, insurance discount, and points earned. Table 2 (reverse) lists the activities that will earn cities points, and lists the average number of points awarded for cities undertaking that activity. Actual points awarded will differ based on the city's circumstances. To be eligible for the CRS flood insurance discount, cities must complete activity 310, maintaining records of FEMA elevation certificates for new construction in the flood plain, and participate in the National Flood Insurance Program (NFIP).

Madras may already be undertaking a number of the eligible activities listed in Table 2. The average points earned, found in the rightmost column of Table 2 can help cities estimate what class rating they may currently qualify for, and determine likely activities they can pursue to increase their rating. The average points listed in Table 2 will earn a city a Class Rating of 6. More detailed information about earning points can be found in the link to the right.

Free webinars and information about applying for the Community Rating System are available on the FEMA website:

www.fema.gov/nationalflood-insurance-programcommunity-rating-system

#### How can Madras apply for CRS?

Participation in CRS is voluntary. There is no application fee. Table 1: Class rating and insurance discount Cities must be in full compliance with the rules and regulations based points earned of the National Flood Insurance Program.

A city executive must appoint a primary CRS coordinator who will be the City's liaison with FEMA. The identified coordinator should be familiar with the city departments that handle floodplain management and should have appropriate authority to make the decisions necessary to implement the program.

#### Why participate in CRS?

The CRS is a way for cities to intentionally plan for flooding. The activities identified in Table 2 increase public awareness of flood risk and improve floodplain management. Better education and floodplain management can preserve life and property and reduce flood impacts. Cities can also reduce the rates that residence play for flood insurance by participating.

Rate Class	Discount in Flood Hazard Area	Points required to receive credit
1	45 percent	4,500 +
2	40 percent	4,000 - 4,499
3	35 percent	3,500 - 3,999
4	30 percent	3,000 - 3,499
5	25 percent	2,500 - 2,999
6	20 percent	2,000 - 2,499
7	15 percent	1,500 - 1,999
8	10 percent	1,000 - 1,499
9	5 percent	500 - 999
10	0 percent	0 - 499

Summarized from FEMA's "Local Official's Guide to Saving Lives, Preventing Property Damage, and Reducing the Cost of Flood Insurance.

#### Table 2: What activities earn CRS credit?

The following table includes activities that can earn CRS credit. There are 18 activities that fall into four categories.

Series	Public Information	Average Points
300	Public Information: Credits programs that advise people about the flood hazard, insurance, and wa	190000000000000000000000000000000000000
300	duce damage. Activities also provide data that insurance agents need for accurate flood insurance	•
310	Elevation Certificates: Maintain FEMA elevation certificates for new construction in the floodplain	69
320	Map Information Service: Provide FIRM* information to people who inquire; publicize information	138
330	<u>Outreach Projects</u> : Send information about flood hazard, insurance and protection measures and/or the natural and beneficial functions of floodplains.	90
340	<u>Hazard Disclosure</u> : Real estate agents advise potential purchasers of flood-prone property about the flood hazard; regulations require notice of hazard	19
350	<u>Flood Protection Information</u> : The public library and/or community's website maintain reference to flood insurance and flood protection	24
360	<u>Flood Protection Assistance</u> : Give inquiring property owners technical advice on how to protect their buildings from flooding, and publicize this service	53
400	Mapping and Regulations: Credits programs that provide increased protection to new developmen	t
410	Additional Flood Data: Develop additional flood data for an area not mapped	86
420	Open Space preservation: Guarantee that currently vacant floodplain parcels will be kept free from development	191
430	<u>Higher Regulatory Standards</u> : Require freeboard**; require soil tests for engineered foundations; Have regulations tailored to protect critical facilities or areas subject to special flood hazards	166
440	Flood Data Maintenance: Keep flood property data on computer records	79
450	<u>Stormwater Management</u> : Regulate new development throughout the watershed to ensure that post-development runoff is no worse than pre-development runoff; Regulate new construction to minimize soil erosion and protect or improve water quality	98
500	Flood Damage Reduction: Credits programs that reduce the flood risk to existing development	
510	Floodplain Management Planning: Prepare, adopt, implement, and update a comprehensive flood hazard mitigation plan using a standard planning process.	115
520	Acquisition and Relocation: Acquire and/or relocate flood-prone buildings out of the floodplain	213
530	<u>Flood Protection</u> : Protection of existing floodplain development by floodproofing, elevation, or minor structural projects	93
540	<u>Drainage System Maintenance</u> : Conduct periodic inspections of all channels and retention basins, and remove debris as needed.	232
600	Flood Preparedness: Credits flood warning, levee safety, and dam safety projects	
610	Flood Warning Program: provide early flood warnings to the public, and have a detailed flood response plan keyed to flood crest predictions	93
620	<u>Levee Safety</u> : Maintain existing levees not otherwise credited in the flood insurance rating system that provide some flood protection	198
630	<u>Dam Safety</u> : All communities in a state with an approved dam safety program receive some credit.	66

The average points listed with this chart will earn a city a Class Rating of 6.

<sup>\*</sup>FIRM - Flood Insurance Rate Maps
\*\*Freeboard - the height of the watertight portion of a building

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#### **GIS MEMORANDUM**

This section details the GIS process that the CPW plan integration team used to complete an analysis of property located in the City of Madras floodway and floodplain. The data from the analysis was used to update the natural hazards inventory section of the revised natural hazards chapter.

#### **Purpose**

Understanding the type and amount of property resources a city has is an important first step to the comprehensive planning study. This technical memo is written as a supplement to the City of Madras' Natural Hazards Comprehensive Plan Element. The CPW team created an inventory of all natural hazards threatening Madras as an integral part of the planning process. The inventory of the natural hazards chapter is largely informed by the Madras Addendum of the Jefferson County Natural Hazard Mitigation. However, project associates desired to include new information about the land uses existing within the floodplain to inform the planning process.

The floodplain was the only hazard area selected for this additional analysis because it is the only hazard that the CPW team has regulatory maps for. The floodway and floodway fringe are designated by the Federal Emergency Management Agency (FEMA). FEMA delineates the floodway and floodway fringe as a way of determining which properties need flood insurance. The floodway has the highest risk of flooding, while the floodway fringe is identified as having at least a one percent chance every year of being affected by a flood. FEMA refers to the area that includes both the floodway and the floodway fringe as the Special Flood Hazard Area.

The CPW team recommends that the currently federally-designated floodway and floodplain be updated to account for new development and more accurately reflect the true risk of flooding in Madras. If the boundaries to the special flood hazard area (SFHA) change, the information this analysis produced for the comprehensive plan will need to be updated. This memorandum provides a step-by-step methodology (see below) to assist replication of the analysis if and when the SFHA are updated.

## **Findings**

The tables below summarize the results from the analysis of land uses within the floodway and floodplain. This analysis considers the floodway and the floodway fringe separately so that the land is not counted twice.

Table 1: Land uses within the Special Flood Hazard Area by acreage and percentage

		<u> </u>		
	Floodway Acreage	Percentage of Floodway	Floodway Fringe Acreage	Percentage of Floodway Fringe
	Acreage	Officoaway	Acreage	1100away 1111ige
Commercial	7.972	12%	21.016	15%
Residential	8.071	12%	34.1	24%
Government	14.374	21%	19.685	14%
School	18.705	27%	27.885	19%
Utility	0	0%	0.272	0%
Vacant	19.375	28%	40.234	28%
Total	68.497	100%	143.192	100%

Source: Jefferson County Tax Assessor's Office

Table 2: Number of structures within the Special Flood Hazard Area

Structures in the Special Flood Hazard Area			
Floodway	88	26%	
Floodway Fringe	254	74%	
Total	342	100%	

Source: Jefferson County Tax Assessor's Office

## **Opportunities for Further Analysis**

This analysis could be improved by including information about the assessed value of the properties and the improved values of the structures on those properties within the Special Flood Hazard Area. This information would provide insight into the dollar value of assets currently in the highest flood risk areas. Property value information could also provide further support to implement policies such as relocating structures in the Special Flood Hazard Area, or limiting the types of new development within the floodplain.

Additionally, since this analysis uses only tax assessed property, it leaves out public rights-of-way, such as roads, that represent significant capital investments on the part of the city. Creating and executing an analysis that could assess the value of public transportation infrastructure, utility lines, and other important non-assessed infrastructure, could provide insight into how much city investment occurs within the floodplain.

## **GIS Methodology**

This analysis uses ArcMap software and GIS data provided by Jefferson County to conduct an inventory of land uses within the floodway and floodplain of the City of Madras.

#### **Data Used**

The following datasets are necessary for recreating the data analysis described herein.

- Jefferson County Taxlots
- Jefferson County Special Flood Hazard Area
- Improved structures
- City of Madras UGB

#### **Data Created**

The analysis described below will synthesize the data listed above to create the following new datasets.

- New aggregated land use designations for tax lots based on general land use categories.
- Taxlots clipped to match the boundaries of the floodway and floodplain.

#### **GIS** Functions Used

The following GIS tools are needed to conduct this analysis.

- Clip tool
- Field calculator

#### **Step-by-Step Approach**

The information below is the step-by-step methodology for analyzing proportions of land uses within the Special Flood Hazard Area.

- 1. Isolate the relevant taxlot data to constrict the analysis to parcels within the floodplain and floodway.
  - a. Flood affected areas: Using Jefferson County Special Flood Hazard Area as the source layer, select by location for all polygons intersecting the City of Madras UGB. Right click the Jefferson County Special Flood Hazard Area on the menu, then select "Data > Export Data" Choose where to save the data and indicate "Flood Hazard Area" within the file name.
  - Flood affected taxlots: Using Jefferson County Taxlots as the source layer, select by location for all taxlots intersecting the Jefferson County Special Flood Hazard Area.
  - c. Flood affected buildings and structures: Using the Improved structures as the source layer, select by location for all Improved Structures that intersect the Jefferson County Special Flood Hazard Area.
- 2. Differentiate between floodway and floodplain. This step will produce two shapefiles, one representing the floodplain and one representing the floodway, consisting of one feature each.
  - Use the "Interactive Selection Tool > Add to Current Selection" to select all features from the Flood Hazard Area layer that comprise the floodway.
     Right click on the Flood Hazard Area layer on the menu, then select "Data >

Export Data." Choose where to save the data and indicate "Floodway" within the file name. Add the data to the map as a layer.

- b. Repeat step "a" for the floodplain.
- c. Merge the features to create one feature: Select all features within the newly created "Floodway" layer. Using the editor toolbar, begin an edit session. Using the Editor tool bar, Merge the selected features to create one feature.
- d. Repeat step "c" for the floodplain layer.
- 3. Prepare the Jefferson County taxlot file for analysis. The building code information listed in the "CLASS\_DESC" column of the Jefferson County taxlot file is more detailed than is needed for this analysis. This step will aggregate classifications to create more general categories.
  - a. Out of editor mode, create a new field titled "LAND\_USE".
  - b. Begin editor mode, and use the field calculator to populate the "LAND\_USE" field based on the following table:

Commercial	COMMERCIAL IMP COMMERCIAL PART EXEMPT BENEV. FRAT. CHARIT. IMPROVED CHURCH IMPROVED COMMERCIAL IN RES ZONE CHURCH PART EXEMPT
Residential	DUPLEX, TRIPLEX, FOURPLEX M S PARKS MULTI-FAMILY IMP POTENTIAL DEVELOP RES - MS IMP POTENTIAL DEVELOP RES IMP POTENTIAL DEVELOP TRACT IMP POTENTIAL DEVELOP TRACT MS IMP RES IMP ZONED COMM'L RESIDENTIAL IMP RESIDENTIAL MS IMP
Government	COUNTY - IMPROVED STATE OWNED LAND CITY - IMPROVED OTHER MUNICIPALS IMP
School	SCHOOL IMPROVED
Utility	DOR - UTILITY
Vacant	COMMERCIAL LAND CHURCH LAND COUNTY LAND CITY LAND MULTI-FAMILY LAND POTENTIAL DEVELOP RES LAND RESIDENTIAL LAND SCHOOL LAND

4. Isolate only the areas of taxlots that are at risk of a flood hazard. This step will create a layer that allows the analyst to calculate area of land and land uses within

the floodway. The result will be two shapefiles representing the area of taxlots within the floodway and the area of taxlots within the floodplain.

- a. Use the Clip tool from the "Analysis" toolbar. Use the Flood Hazard Area as the Input Feature, and the Floodway as the Clip Feature. Select where to save the data and use "Clip" in the filename. The new file will automatically draw in the dataframe.
- b. Repeat step "a" using the Floodplain shapfile as the Clip Feature.
- 5. Calculate the area of the taxlots from the newly created clipped tax lot layers.
  - a. Out of editor mode, add a field to the "FloodwayClip" attribute table called "CAL\_ACRES". Type = double, Precision = 9, and Scale = 3.
  - b. Right click the heading of the new field and select calculate geometry.
  - c. Select "Area" from the first dropdown menu and "Acres US" from the second drop down menu. Click OK.
  - d. Repeat steps "a," "b," and "c" for the FloodplainClip layer.
- 6. Export the tables for analysis in excel.
  - a. Open the FloodwayClip attribute file and from the attribute file menu, select "Export." Choose where to save the file.
  - b. Repeat step "a" for FloodplainClip
- 7. Open the files in excel and calculate the total number of acres per land use based on the "LAND\_USE" column and "CAL\_ACRES" column.

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#### **MEETING MINUTES**

This section summarizes the meeting minutes from all CPW team meetings with the City of Madras. The meeting minutes can be viewed in full below.

#### **Purpose**

The meeting minutes were taken at the following meetings:

- February 27, 2014: First Technical Advisory Committee (TAC) meeting in the Madras City Council Chambers
- April 17, 2014: Second TAC meeting in the Madras City Council Chambers
- June 4, 2014: Presentation to the City of Madras Planning Commission

The meeting minutes were captured by the CPW team during the meeting and sent out to all attendees. In addition, the minutes were sent to those who were invited, but were unable to attend.

The meeting minutes reflect key discussion points, questions that need to be addressed, and any other comments made at each meeting.

## **Original Meeting Minutes**

March 11, 2014

To From SUBJECT Madras Technical Advisory Committee (TAC)
CPW Project Team
FEBRUARY 27 MADRAS TAC MEETING MINUTES

On February 27, 2014, the Madras Technical Advisory Committee (TAC) convened in the Madras City Council Chambers. This served as an initial meeting for the Natural Hazard Mitigation Plan/Comprehensive Plan Integration Project with the TAC for the City of Madras. The purpose of the meeting was to (1) clarify the context and scope of work for the project, (2) present and discuss case studies, (3) discuss the stakeholder interview and public survey, and (4) narrow down an approximate date for the next TAC meeting and public forum.

#### I. Attendees

The following people attended the meeting:

**Technical Advisory Committee:** 

- Nick Snead City of Madras Community Development
- Joe Krenowicz Chamber of Commerce
- Tom Jaca Jefferson County Fire District
- Allen Hurley Planning Commission
- Robert Collver Planning Commission
- Walk Chamberlain City Council

- Royce Embanks City Council
- Gus Burril City Administrator
- Jeff Hurd Public Works Director

#### Project Team:

- Drew Pfefferle Project Associate
- Emily Kettell Project Associate
- Laura Stroud Project Associate
- Ross Peizer Project Associate
- Elizabeth Miller Project Associate
- Sarah Allison Project Manager
- Josh Bruce Project Advisor

#### **Invited Guests:**

- Marian Lahav Department of Land Conservation and Development
- Lisa Peffer (via phone conference) Department of Land Conservation and Development
- Scott Edelman Department of Land Conservation and Development

## II. Context and Scope of Work Review

The project team began the meeting with a presentation (attached) with the following elements:

- Background and context of the project
- Scope of work and deliverables
- Agenda review

#### III. Case Studies

The project team presented case studies of other cities that have taken initiative to create a more thorough hazards section to their comprehensive plans. These case studies were organized by voluntary measures, regulatory measures, and the structural layout of these plans.

- Case studies presented examples of regulatory measures and voluntary measures
- Question raised: How do increases in the National Flood Insurance Program premiums impact CRS benefits?
  - Recent natural hazards in last few decades have depleted emergency funding from FEMA. Because of this, previously subsidized rates are transitioning to actuarial rates. CRS reduces rates by a percentage, and that program has not been reduced due to the depleted funding. Each 5% reduction will be a larger dollar amount because the total dollar amount of insurance has increased.

- Josh: These case studies show opportunities to structure a disaster mitigation program, such as CRS, at the local level.
- Questions raised: Royce wants to know if they have looked into flooding problem on 10<sup>th</sup> street, and how it relates to premiums.
- Question raised: What hazards are we focusing on?
  - Answer: All will be addressed
- Concern expressed: Fire is more frequent than flood; maybe wind too

## IV. Activity

The activity aimed to get the TAC members thinking of their role in this project, hazards in Madras, and the importance and urgency of the issue.

Remarks following the activity:

- A big issue for the CPW team will be how to take this presentation to the public without losing their interest right away
- A lot of the public does not see the problem: things need to be updated frequently, but they don't perceive the emergency right away of hazard mitigation until the disaster has struck
- We might be able to get more receptiveness from the public if presentation for plan for disaster mitigation can happen very soon due to the recent severe storm
- Target people in the floodplain directly → give handouts (to boyscouts or someone who can pass it out) in regards to issues in the floodplain
  - Even putting it in the paper might not work
  - Having a council meeting might not be very effective
- Current emergency preparedness Is really poor from the perception of the TAC members

## V. Interview and Survey

#### Methods: Phone interview and online survey

The CPW team intends to target the following types of participants for the phone interview: business owners, landowners, and city officials. The process of public outreach will begin with phone interviews, followed by an electronic (and possibly paper) survey. The team will present the results of those interviews and surveys at a public forum and separate work session in April. The results of the interviews, survey and work session will inform the chapter and supporting educational materials.

#### **Phone Interview:**

The phone interview will be done in approximately 30 minutes with a preset list of interviewees, with participants pre-appointed by Nick Snead and any others than the TAC identified as important participants. We want to talk to downtown specific business owners (not the general public). Approximately half of the participants will be business owners. The interview time will be arranged ahead of time with an

introduction through Nick Snead and an email for us to schedule a time and provide the interviewee with contextual information.

Other TAC feedback:

- Joe K: 30 to 45 minutes is too long; 20-30 minutes would be more appropriate.
   Business owners might be more invested if they know that it will benefit their business and we ask for their time.
- Royce: The Lutheran church has had flooding issues they might be good to interview.
  - o Ruth Trout
- Business angle is important and they can form thoughtful answers

#### **Online Survey**

For the online survey our team would like as much participation as possible, and it will be written for a broader and more public audience.

TAC feedback and comments on methods of survey dissemination:

- Chamber of commerce can help dispense. Be explicit about how much time it will take and include a percent complete
- Newspaper
- Crestview? Cable Ad channel
- The Roundup monthly paper
- City and Chamber website,
- Mailing
- Fliers through the post office
- Going door to door
- Flier in the newspaper
- Fliers might have more influence if they have the city's logo on them.
- Senior Center Folks hand out survey at senior lunches
- Fire department had marginal success with a mailer that had 60 percent sent back
- DO NOT include names on any mailing or they will be sent back
- Can have certain mail routes that target floodplain area
- Fire district has facebook. Jefferson County Fire District No. 1, which could advertise the survey
- Larger employers could pass out fliers
  - o Brightwood
  - Hospital
- Could print on sewer bill (affirmative)
- What should we know in preparation for these surveys?
  - Bilingual survey (Don't necessarily get a big response from non-English responses)

- Tuesday or Wednesday are the best days to send things out for getting a response
- One concern of the community is that FEMA has to redefine floodplain map.
   Community believes flood plain maps are wrong. Is correcting the maps something the city wants to look into? Do we need to show examples to the public as to why the FEMA floodplain map is correct?
  - o Photographic analysis of historic flood plain.
- We will have to convince respondents that their input will be accurately used
- Ask if they've ever been impacted, and opinion of how city could better respond
- Assuming that we don't know that people don't understand hazard issues. What are we going to do about it??
- Voluntary vs. Regulatory approaches. How do we get people to move?
- Something the TAC might need to agree upon is how to use the results of the survey
- Would it be valuable to ask whether people have flood insurance?
- Important distinction based on tenure
- Don't forget about fire as a natural hazard.
- Joe is willing to help us beta test interview questions
- Public event would be a good time to get more surveys

The TAC recommends that we boil down the information given in the survey:

- What is the objective? We want to minimize floods, fires, etc. (future impact) we want to ask important questions
- Be specific about what kind of response you want in regards to what exactly.
- Have you been impacted personally? If they haven't been impacted then they might not answer
- Rating of hazards
- O What is the sense of urgency?
- City spent \_\_\_\_\_ (don't have specific number now) Could be a way to get people's attention: either through cost savings in the event of a disaster or reduced flood insurance.

## VI. Closing/Next Steps

The project team reviewed next steps for interviews and surveys, discussed options for the next meeting, and asked the TAC to consider participating in the filming of the educational materials.

- Wrap up phone interviews and construct online survey within the next three weeks.
- Next time in Madras, there will be a public forum where we present some more information to public and a work session with extended stakeholders and TAC meeting.

- Evening public forum and morning work session the next day
- Wednesday nights are traditionally church nights
- 5:00 or 5:30 are good times or else we'll lose people
- April the 16<sup>th</sup> is a possible day, but it a tough week.
- April is budget month, so it's going to be difficult to schedule that month

After discussion with Nick, the dates for the next meetings have been set with the public forum on April 16<sup>th</sup> and the TAC meeting the morning of the 17<sup>th</sup>.

To From SUBJECT Madras Technical Advisory Committee (TAC)
CPW Project Team
APRIL 17 MADRAS WORK SESSION MEETING MINUTES

On April 17, following a public forum on April 16, the Community Planning Workshop (CPW) team convened a work session with the Madras Technical Advisory Committee (TAC) and guests. The purpose of the meeting was to update the TAC on the project and to discuss the natural hazards chapter deliverable regarding structure and content.

#### I. Attendees

The following people attended the meeting:

**Technical Advisory Committee:** 

- Nick Snead City of Madras Community Development
- Joe Krenowicz Chamber of Commerce

Project Team:

- Drew Pfefferle Project Associate
- Emily Kettell Project Associate
- Laura Stroud Project Associate
- Ross Peizer Project Associate
- Elizabeth Miller Project Associate
- Sarah Allison Project Manager
- Josh Bruce Project Advisor

**Invited Guests:** 

• Scott Edelman – Department of Land Conservation and Development

#### II. Introduction

Nick Snead began the meeting with an introductory story of a building permit application for a mobile home in the Willow Creek Trailer Court, which is directly in the floodway and floodplain. The main point circled back to the need to keep vulnerable populations out of the floodplain. Additionally, for those people currently in the floodplain, renter's insurance should be a priority as well as flood insurance for the property owner.

## **III. Brief Project Overview**

The team presented a brief summary of the project purpose and progress to date. In addition, the team summarized recent events that highlight the importance of hazard mitigation planning and the role of policies, implementation plans, and ordinances as tools to protect life and property. This discussion used examples of

the case of landslide in Oso, WA, where mitigation measures were insufficient to address the hazard, and recent earthquakes in Chile, where hazard policies had significant positive effect.

## IV. Summary of Community Input

The Community Planning Workshop team summarized the valuable input gathered through phone interviews, an online survey, and a public forum.

The twelve interviews were identified as the strongest source of public engagement. Prior to the public forum on April 16, eighteen people had taken the online survey. Ten people attended the public forum, including a mix of interviewees, TAC members, and residents who had not been contacted previously.

The CPW team presented the following key takeaways from the interviews, surveys, and forum (see attached Powerpoint presentation).

#### Interviews:

The interviews revealed some trends among those interviewed that correspond with input received at the public forum and in interviews. Most respondents indicated that it is both the city's responsibility (primarily to inform citizens to their risk) and the responsibility of citizens to take action. There was a general response that the city should have policies and framework in place, but it's the responsibility of citizens to take action. Respondents indicated a desire for a framework and support in place to mitigate hazards, but do not want to be told what to do: this is a possible value contradiction, and is anticipated to be a major part of our challenge to find that balance. However, building in small steps to increase policies over the course of years will likely support a better transition and more successful implementation.

This also underscores the importance of education as a key component to promote citizen action. An important takeaway from the interviews was that respondents in general want more access to reliable information on hazards in addition to suggested actions they can take to protect themselves and their property.

#### Surveys:

Everyone who took the survey indicated that it's important or very important for individuals and public agencies to make long-term preparations for hazards. However, there is a trend of a contradiction in opinion regarding roles of city taking long-term precautions and actual proposed policies. A majority of survey participants also indicated that new development should be held to higher standards than existing development.

Similar to the interviews, a major element that was taken from the survey input is that there is a need to increase efforts to educate people on natural hazards, available mitigation measures, and where to go to find reliable information.

#### **Public Forum:**

There were ten attendees of the public forum, including some TAC members, public employees, and business owners. Among the variety of input and opinions there were a few reoccurring themes. Many attendees expressed that the city needs a framework in place for hazard mitigation, and acknowledged that individuals have a role in this. Residential and commercial property owners have similar responsibilities. Similar to input from the interviews and surveys, attendees in general expressed that existing development should not be regulated as strictly as new development.

The team had a discussion about a general approach to hazard mitigation for the city. This discussion included a focus on working to give the public the tools to be fully self-reliant and resilient to hazards. As an approach, the City could push not only sustainable living, but a proactive city that is prepared to be resilient. This could be done by taking measures to keep people regularly updated on how to be hazard ready. This could even be simple and concise seasonal mailer about how to be prepared so that community members have this understanding.

## V. Comprehensive Plan Chapter Discussion

#### **Chapter Structure:**

The proposed chapter structure includes the required elements for Oregon State Planning Goal 7:

- Inventory
- Policy
- Implementation

The proposed structure can be inserted into the current Comprehensive Plan, potentially in separate pieces, but is meant to be a stand-alone document. Another possibility would be to take the entire Goal 7 Chapter and put it into the current Goals and Objectives section to the Comprehensive Plan, with the understanding that Madras' current Comprehensive Plan will be restructured eventually.

#### **Inventory of Hazards:**

The team has created a draft of the inventory section to the Natural Hazards Chapter for the Comprehensive Plan, based upon the Madras-specific section of the Jefferson County Natural Hazards Mitigation Plan.

A possible component to add to the Comprehensive Plan could be to address the role Madras will take in the event of a regional disaster, such as acting as a staging area in the event of an earthquake or tsunami on the coast. We could address this concern through elements in the inventory section or within policies that aim to address what role Madras would take in a regional disaster event.

#### Goals:

In the discussion of how to approach creating the goals for the Comprehensive Plan, those present indicated that the plan should include hazard-specific goals, within the overarching theme of the primary goal (State Planning Goal 7), which is to protect life and property from natural hazards. Each hazard would have at least one goal to address it specifically, but some hazards may have more than one goal attached to it. If there is one broad goal, it tends to be vague. That is what the City has right now and is trying to improve upon. Posing more specific and achievable goals will help to measure if and when the goal is achieved.

One issue the team will need to be careful with is the use of "hard words" or polarizing wording. For example, rather than "eliminate," "minimize" would likely more acceptable in Madras. This also includes a need to find a balance between regulatory measures versus incentives. Most importantly, we need to try to create goals and policies that reflect the feedback from the community.

Goals and policies should address both the educational/awareness aspect, as well as specifics about regulatory frameworks. It is not necessary that everything has to be identical to the addendum of NHMP, however some goals and policies can be pulled directly from the NHMP addendum action items for Madras.

Participation in Community Rating System (CRS) was identified as one of the goals for flooding. Among the CRS steps, the city will need to evaluate where it starts to become too regulatory (balance with what the CPW team just heard from the surveys and interviews). One possibility is if the City sets a specific CRS goal, which gives the City a target and way to monitor policy.

#### **Policy Options:**

The CPW team received a variety of feedback in interviews, surveys, and especially the public forum regarding policy options and getting a sense of if the community is open to more regulatory measures, or voluntary measures. One aspect that may be discussed further is the possibility of setting up the goal 7 chapter to either incorporate or set up chapters for goals 5 (Natural Resources, Scenic and Historic Areas, and Open Spaces) and 6 (Air, Water and Land Resources Quality), as goals 5, 6, and 7 have many similarities.

The team will develop some policies and provide some options for Nick to review. The CPW team will also look at case studies for sidewalk/ building elevation, and will consider policy options that would restrict manufactured dwellings from the floodway since that is currently a concern for the city. The team will create a draft for goals and policies that can be dynamic and will stay relevant for an extended timeframe.

Based upon information gathered at the public forum, the public and the city have an interest in updating the Flood Insurance Rate Map (FIRM). Setting a policy for getting new flood maps needs to be a priority. In general there needs to be solid

grounding for every policy; it needs to be consistent with the inventory and feedback from the public.

#### Implementation Strategies:

In drafting the implementation strategies, the team has the challenge of creating strategies that are specific enough to set a clear path of action, but also leave room for change. Implementation strategies that are less specific will allow the city to clarify and specify implementation measures with more precise language over time. High specificity could result in low community and planning commission support, whereas a lower level of detail may gain support more easily. However, examples like the action item for the bridge from the NHMP should be very detailed.

Addressing urban renewal and protecting key businesses were discussed as important elements to incorporate into the implementation measures. Overlay zones may be proposed, however there is low confidence in the success of that measure.

## VI. Next Steps

In order to encourage more participation from the Madras community, communications will go to the Planning Commission once Nick reviews them. The final meeting and presentation to the Planning Commission and City Council has been set for June 4<sup>th</sup> from 6pm to 8pm.

Nick would like to get further input in the future about what the city could do to educate the public better to disseminate important information.

To From SUBJECT **Madras Planning Commission** 

**CPW Project Team** 

JUNE 4 PLANNING COMMISSION WORK SESSION MEETING MINUTES

On June 4, project associates with Community Planning Workshop presented the results and deliverables of a project to integrate sections of the Jefferson County Natural Hazard Mitigation Plan into the City of Madras Comprehensive Plan. Project associates presented the structure of the proposed natural hazards chapter of the Comprehensive Plan and meeting attendees had the opportunity to comment on the proposed chapter's contents.

#### I. Attendees

The following people attended the meeting:

Planning Commissioners:

- Nick Snead
- Jim Eply
- Brian Huff
- Allen Hurley
- Gus Burrell
- Eldon Sasser
- Bill Montgomery
- Jamie Smith
- Joe Krenowicz

#### Project Team:

- Drew Pfefferle Project Associate
- Emily Kettell Project Associate
- Laura Stroud Project Associate
- Ross Peizer Project Associate
- Elizabeth Miller Project Associate
- Sarah Allison Project Manager
- Josh Bruce Project Advisor

#### Invited Guests:

- Scott Edelman Department of Land Conservation and Development (DLCD)
- David Chapanar Chappy's Auto Parts Co-owner
- Kathy Chapanar Chappy's Auto Parts Co-owner

#### II. Call to Order

Allen Hurley called the planning commission to order.

## III. Consent Agenda

Commissioners made minor corrections to the previous meeting's minutes.

#### IV. Visitor's Comments

This section included a power point presentation by the CPW team and open discussion. The power point slides are included with these minutes. The comments below are a summarization of the meeting's discussions.

#### **Meeting Overview and Introductions:**

The meeting was a work session and the commission did not make any firm decisions about the final products. The primary purpose was to take a first look at the project associates' work, offer preliminary feedback and begin generating and answering questions among the planning commissioners. A public hearing is slated for July or August to begin the process of approving the plan chapter.

#### **Project Overview:**

Project associates offered a project overview to summarize the scope of the project and the timeline. This project is a hazard mitigation project, which means that the city is taking steps to address future hazards. The process involves integrating information from the Jefferson County Natural Hazard Mitigation Plan and incorporating it into the City of Madras Comprehensive Plan.

Project deliverables include the revised natural hazards chapter for the Comprehensive Plan, informational materials for public education, and a lessons-learned case study that will be completed over the summer.

#### **Methods and Findings**

The major theme of the methods section was determining to what degree residents support regulation (as opposed to voluntary or incentive approaches) to mitigate natural hazards. Project associates found that many respondents felt that it was important to have some reasonable regulations. Also, education is important for communicating why these particular regulations are important. Personal responsibility is important for encouraging people to take action on non-regulatory approaches. Education is an important part of influencing personal responsibility.

#### **Policy Framework:**

Project associates presented the components of the comprehensive plan chapter and specific language of the goals and policies. Commissioners discussed concerns about particular goals and policies.

#### Structure and Inventory:

The chapter is structured so that it can function as a stand-alone chapter, or be integrated into the existing sections of the City's Comprehensive Plan. The plan components balance the needs of DLCD and the City. The chapter consists of an inventory, a list of goals and policies, and a list of implementation measures. The

inventory section is comprised of information from the Jefferson County Natural Hazard Mitigation Plan.

#### Goals and Policies:

The remainder of the chapter is structured by identifying clear goals, policies, and implementation measures. Goals are long-term objectives, policies are a course of action to achieve goals, and implementation measures are short-term objectives to meet goals. Project associates presented one example of how goals and policies were organized in the plan.

At this point, the CPW team opened the floor for questions in order to hear the planning commission's thoughts and opinions about the proposed goal and policy language. The planning commission was able to select which goals and policies they wanted to discuss in detail.

#### Multi Hazard Goal 4

**Goal language:** Position the City of Madras to strategically address the State of Oregon's needs related to a regional natural disaster event.

The discussion focused on whether the State had defined what would be considered "needs" in the case of an emergency. There was particular concern that the city might be financially responsible for issues in other municipalities or counties.

#### Commentary:

- Will Madras have to pay to meet the needs of others in the event of a huge natural disaster?
- Will Madras bee on the hook financially to take care of other populations?
   This kind of financial commitment would be unfeasible for the city. The idea isn't necessarily to serve as a location for refugees to come, but as a staging area for supplies to send west of the Cascades in the case of the Cascadia subduction event.
- Has the state already defined what needs Madras would be supporting? The state is in the process of defining their needs. Language can be presented in a way that allows flexibility when the state finalizes their needs in the coming years.
- Commissioners determined that the sprit of the goal was clear and left flexibility to account for the State's goals.

#### Flood Policy 1.2

**Policy language**: The City shall not permit new public buildings in the floodplain.

Discussion about this policy focused on whether the language was too restrictive. Primary concerns were whether the City would be able to renovate or add on to buildings (like the public works building) currently in the floodplain.

#### Commentary:

- The policy states that Madras can't have any public buildings in the floodplain. Is that the floodway? Floodplain? Floodway fringe? Is this too restrictive?
- Would this affect renovations or expansions on buildings already within he floodplain? Would these updates have an impact on the property value or resale value of homes and businesses within the floodway?
- The Community Rating System (CRS) is a voluntary program that provides communities with a range of options for addressing flooding.
- There is not necessarily one approach that will fix all of the issues surrounding flooding. Nick is in preliminary discussions with the Army Corps of Engineers about remapping the floodplain. They are working on how to do some preliminary work to determine if there are any large discrepancies and determine whether a remap would be worthwhile. Many people expect that remapping the floodplain would result in a narrower floodway and floodway fringe, but everyone should acknowledge that new properties could be included or that there might not be much change.
- There was discussion about the floodplain and how floodplains work, and discussion bout the ranking of the risk of natural hazards. The ranking information can be fond in the NHMP.

#### Windstorm Policy 1.1

**Policy language**: The City shall identify and prioritize the undergrounding of critical overhead utility lines throughout the city to protect them against strong winds.

Discussion focused on clarifying how this policy is different from existing policy to underground utility lines on new development. There was also clarification about whether cost of projects should be discussed at this point.

#### **Commentary**:

- Does the city already require utility lines to be undergrounded?
- It's required that new lines be undergrounded, but this policy also recommends grounding existing lines. This fits with what the city currently does, but offers prioritization for undergrounding.
- There is no expectation or requirement right now that the city associate dollar amounts with the projects proposed by the chapter. There are some proposed projects that are achievable without cost.

Wildfire Policies 1.3 and 1.4

**Policy language 1.3**: The City shall create density and defensible space requirements for structures located in wildfire hazard areas.

**Policy language 1.4**: The City shall work cooperatively with the Jefferson County Fire District #1 for free brush and yard debris disposal days to reduce fuels around development.

Discussion focused on whether these policies were new or a continuation of activities the fire district is already doing.

#### Commentary:

- Could these two policies be combined?
- The fire department already does these things, so the language should use the word "continue." The city is not currently enrolled in the Firewise program, but it could be almost costless for the city to do so.
- Brian Huff said he didn't currently foresee any issues regarding fire and housing density. Someone suggested that the fire marshal could be involved in decisions about density. Enrolling in the Firewise program is the only thing that is not currently underway. Nick suggested that the city could partner with the fire department to enroll in that program.

Revisit Flood Policy 1.2

**Policy language**: The City shall not permit new public buildings in the floodplain.

This discussion revisited the previous discussion about this policy. The primary focus was whether the language should be changed to something less restrictive or if the policy should remain aspirational by not permitting new public buildings in the floodplain.

#### Commentary:

- Should this policy be eliminated?
- The language could instead be changed to "limit" building public buildings in the floodplain. The point of the policy is to focus on public buildings. The comprehensive plan is not addressed when considering new development. It is a guide. The ordinances are already assumed to be consistent with the comprehensive data. Nick would like to encourage the City to say that they don't want to have any buildings in the floodplain as something to aspire to.
- This goal is intended to look at long-term, incremental projects. The project associates will take an additional look at goal language and rework it to something that better communicates this intention.

#### **Next Steps**

Please contact Sarah Allison with any further comments about the content of this meeting or the content of the proposed goals and policies. She can be reached through Summer 2014 at <a href="mailto:s.g.allison@gmail.com">s.g.allison@gmail.com</a> or (314) 359-9361.

The commission believes that there has been adequate public outreach at this point and will continue the process of approving the goals and policies for inclusion in the comprehensive plan.

The project associates will incorporate comments from this meeting and any additional comments submitted to Sarah Allison and will return a draft to the planning commission.

The planning commission will have one more meeting regarding this chapter. The meeting would begin as a normal session and only open into a work session if needed. At that point they will present the chapter to the city council. The commission intends to present this issue to the city council by fall.

#### V. Additional Discussion

The CPW team also presented a package of educational materials to assist the City with implementing new natural hazard projects and policies. Educational materials include:

- Community Rating System informational flier
- Educational brochure about the floodplain
- Educational video about natural hazards in Madras and the City's efforts to address them
- Website content that includes information from the above print and media sources.

The CPW team will also create a lessons-learned case study that will summarize the process of researching, creating, presenting and approving the City of Madras Natural Hazards Comprehensive Plan Chapter. This document will inform other cities hoping to undertake a similar project.

## VI. Adjourn

## Natural Hazard Mitigation Plan and Comprehensive Plan Integration

LESSONS LEARNED CASE STUDY MADRAS, OREGON SUMMER 2014



#### **Project Summary**

In 2014, the Community Planning Workshop (CPW) and the Oregon Partnership for Disaster Resilience (OPDR) developed a chapter for the City of Madras' Comprehensive Plan to address Statewide Planning Goal 7: Areas Subject to Natural Hazards. This chapter includes important elements of the Madras Addendum of the Jefferson County Natural Hazard Mitigation Plan (NHMP) and is supported by research and educational materials developed for the community. Figure 1 illustrates the timeline of the project. The project was funded through a Federal Emergency Management Agency (FEMA) Pre-Disaster Mitigation Grant. The purpose of this lessons-learned case study is to present 1) an overview of the benefits of integrating Natural Hazard Mitigation Plans into comprehensive plans, and 2) key issues and recommendations for each phase of the process. This document is intended to assist other Oregon communities in their efforts to integrate NHMPs into their comprehensive plans.

Figure 1. Project Timeline

January	February	March	April	May	June
<ul><li>Literature Review</li><li>Case Studies</li></ul>	•Technical Advisory Committee Meeting •Interview Survey	•Online Survey •Interview Survey	<ul> <li>Analyze Data</li> <li>Work Session &amp; Public Forum</li> <li>Draft Natural Hazard Revision</li> </ul>	<ul> <li>Education Material</li> <li>Lessons- Learned Case Study</li> </ul>	<ul> <li>Revised         Natural         Hazards         chapter</li> <li>Present         Deliverables         to Planning         Commission</li> </ul>

#### **Integration Opportunities**

Goal 7 requires that comprehensive plans include measures "To protect people and property from natural hazards." However, many comprehensive plans provide minimal context or policies to address this issue. To provide a stronger baseline of information, the CPW team turned to the Natural Hazard Mitigation Plan (NHMP). The NHMP is a document required by FEMA to obtain certain federal mitigation planning and project resources. This incentive has lead many jurisdictions to develop and maintain these plans. However, because NHMPs are non-regulatory, mitigation strategies and action items that have been developed often go unimplemented.

By integrating the NHMP into the comprehensive plan, jurisdictions strengthen opportunities to take action on vital mitigation efforts through policies and implementation measures that have regulatory weight. Mitigation actions noted in the comprehensive plan provide a foundation for funding to implement those actions, and create opportunities for a discussion about the level of risk the community is able and willing to tolerate.

It is important to keep in mind that these two documents have separate regulating agencies, and are therefore held to separate sets of requirements. These differences may bring forward some issues in the integration process, potentially resulting in the need to change language when integrating sections of the NHMP into the comprehensive plan.

## The Phases of Plan Integration

Different phases of the plan integration process presented different challenges. Here, we have divided the project into five phases: Pre-work, Project Organization, Research and Public Outreach, Document Structure, and Editing and Adopting.

While there is some overlap between the phases, each one supports the phases that follow. Each phase section includes a description of the phase and recommendations for how to approach its challenges.

## Figure 2. Project Phases

Phase 1 – Pre-Work

Phase 2 – Project Organization

Phase 3 – Research and Public Outreach

Phase 4 - Document Structure

Phase 5 – Editing and Adopting

#### Phase 1 - Pre-Work

Before a city can integrate a Natural Hazard Mitigation Plan into their comprehensive plan, they need to lay a foundation for success. The three key elements of this phase are (1) to have a current NHMP, (2) to identify local support for the project, and (3) to secure funding.

Because the NHMP is the source of much of the information integrated into the comprehensive plan, it must be current. A newly created or updated NHMP will provide the most current information, and can also provide a network to tap into. People involved in the NHMP process will have valuable insights to the integration project if they are included. An older NHMP is still a valid tool, but will have some limitations.

Integration of an NHMP into the comprehensive plan requires the commitment of the City. The time and effort of a comprehensive plan update is considerable. Staff time and budget must be allocated to support the project, even if consultants are hired to facilitate the process.

Finally, there are funding and technical resources available to pursue this type of work. When pursuing these funds, whether through government (federal/state) grants or non-profit organizations, consider additional work that you may want to include. For example, this may be an opportunity to update hazard inventory information such as maps, or to produce educational material that will support the integration project.

#### **Recommendations:**

- 1) Consider how the integration project can be coordinated with an NHMP update to provide current data
- 2) Ensure that the project is supported administratively through staff time
- 3) Look for opportunities to achieve multiple objectives when pursuing funding

#### Phase 2 - Project Organization

Several up-front decisions about the organization of the project will have implications down the road. Whether the project is being taken on in-house or a consultant is hired, determine what is and is not included in the scope of the project. This includes conversations about what "integration" means for the specific jurisdiction. Determine if sources other than the NHMP will be used, and whether the natural hazards information will be contained to a chapter or element, or dispersed throughout the comprehensive plan. Make sure that the legal implications are considered if the hazard update impacts other state planning goals.

Identify key players and ensure that they are appropriately informed. The Department of Land Conservation and Development (DLCD) can play a variety of roles in this type of project. At minimum, the DLCD Regional Representative should be consulted early and kept informed as the project develops. Other key players may include emergency managers, public works, city planners, elected officials, and the chamber of commerce. State agencies such as the Oregon Department of Geology and Mineral Industries (DOGAMI) can also be valuable resources for hazard data and technical support. Determine who should be involved and to what degree so that expectations can be clear throughout the project.

Lastly, be sure to set appropriate timelines that account for feedback and review time from those key players. Some of these review times are explicit, such as DLCD's requirements for comprehensive plan updates. Others will be specific to the people involved, and the amount of time they have to review drafts and products.

#### **Recommendations:**

- Set clear expectations on the scope of the project and level of integration early in the process
- 2) Ensure representation from key agencies and stakeholders in project decisions
- 3) Budget sufficient time for both internal and external review

Phase 3 – Research and Public Outreach

Information for this type of project will come from many sources. Some data will be local and official, such as the NHMP and comprehensive plan. Best practices information can provide a set of options to complement local information. FEMA and the American Planning Association have both published documents on best practices regarding plan integration. Case studies of other jurisdictions that have integrated NHMPs into comprehensive plans are also useful resources. These can offer examples of specific policies and overall structure for the hazards information.

Public outreach provides a different type of local knowledge. In addition to being a requirement of Oregon planning, this outreach can reveal unexpected concerns, help identify levels of support for different policy directions, and lay a foundation for better understanding and support down the line. The more techniques you use, the more individuals you are likely to reach. The Madras project used a technical advisory committee, stakeholder interviews, a public survey, and a public forum.

While valuable, two challenges stood out when reaching out to the public. One was lack of response. Hazards are generally not pleasant to think about. As such, many people avoid engaging with the topic. Finding ways to make the information fun or interesting, and connecting with other events that draw people can help improve your quality of input. The concept of hazard mitigation can also be a tricky one to communicate. Many people instinctively consider hazards in terms of response and recovery, so setting time aside to clarify the concept of mitigation is often necessary.

#### **Recommendations:**

- 1) Seek both technical and subjective information from a variety of sources and through a variety of means
- 2) Take special care to make hazards information engaging and clear to the public

Phase 4 - Document Structure

Oregon Statewide Planning Goal 7 requires three elements: an inventory, policies, and implementation measures. The jurisdiction's current comprehensive plan structure, examples from other comprehensive plans, and the statewide requirements are all resources to help determine how to structure the new comprehensive plan element. In the case of Madras, the project associates and the City made the decision to structure the element as a self-contained chapter organized around the requirements of Goal 7.

The NHMP may provide all necessary information for the hazards inventory. However, there may be opportunities to gather additional inventories, or update old data during this process. When exploring new data, it is important to consider the scale for which it is intended. For example, the state uses some data for hazard inventories that may appear appropriate for the jurisdictional scale, but is based on source material intended for a much larger scale. By paying attention to the scale and source of data early, jurisdictions can avoid wasting time pursuing irrelevant inventory data.

Policies and implementation measures offer considerable flexibility. Depending on the policies developed, they can be organized by hazard or by other criteria that works for the specific jurisdiction. Implementation measures may be grouped with policies, separated out into a different section, or considered more broadly as tools for accomplishing policies. Madras chose to group policies under goals to provide long-term vision for hazard mitigation.

#### **Recommendations:**

- 1) Organize the required Goal 7 elements in a way that supports the particular goals of the jurisdiction
- 2) Screen inventory data early for appropriate scale

#### Phase 5 – Editing and Adopting

Once the structure of the hazards element has been determined, the specific language can be developed and refined. This is one of the easiest places to get bogged down in details or the specific policy wording. To keep things moving, work to achieve consensus among decision-makers at the concept level before drafting and editing specific phrasing.

At this point in the process, it is useful to review the results of public outreach. The public has the opportunity to comment before the comprehensive plan element is adopted, so it is important to be able to discuss why decisions were made. Consider how policies are justified, and if they are supported by educational materials or other programs.

#### **Recommendations:**

- 1) Set the concepts of policies and implementation measures before working with specific phrasing
- 2) Develop a strategy for how to communicate with residents about policy choices

#### **Key Perspectives**

Throughout the development of the project, different groups will have different perspectives, priorities and concerns. It is helpful to consider these from the beginning, to minimize conflict or confusion.

The Department of
Land Conservation and
Development brings
the perspective of how
jurisdiction actions
impact the wider state.
Establish early channels of communication
through the Regional
Representative and
ensure that content
and timing requirements are met.

Community members who engage with the project are likely to bring a very personal perspective. Find ways to discuss both how policies and actions will affect them individually, and what the larger implications are for the community.

Team

The project team is responsible for finding a balance between the needs of all stakeholders in the process. Clear expectations about product and process are extremely important.

City

Community Committee

The City is ultimately responsible for setting the priorities of the comprehensive plan element and following through with implementation. Regular communication and identification of decision-makers is key.

An advisory committee is a useful group to provide perspectives from a variety of departments, agencies and the community at large. Seek out members who will engage with the material by attending meetings and providing feedback on drafts. Set time commitment expectations up front.

#### **References and Credits**













## Is your property at risk?

There are many resources for determining whether your home is at risk of flooding. It is important to remember that none of these methods is a guaranteed way to determine whether your property will or will not flood. It is always possible for unexpected things to happen, especially when nature is involved. Resources are listed on the back panel of this brochure.

The Federal Emergency Management Agency (FEMA) maps flood hazard areas. FEMA rates land based on its susceptibility of flooding. Property owners can determine their property's flood risk by searching for their property on FEMA's Map Service Center.

The City of Madras can also provide you with information about the estimated flood hazard on your property. Employees with the Community Development Department at the City of Madras can help you determine your flood risk.

Sometimes a good indicator of whether a property will flood in the future is whether the property has flooded in the past. Even if a property is not included in FEMA's Special Flood Hazard Area, properties can still be at risk of flooding.

Furthermore, new development within the floodway fringe can displace floodwaters into areas that have not been flooded in the past. Just because a property has never flooded before does not mean there is no flood risk there. Changing development patters could increase flooding properties on some properties.

Flooding in the Willamette Valley in 1996. Photo by the National Weather Service



## THE MADRAS FLOODPLAIN:

## **A USERS GUIDE**

The links below will provide further information about any of the information provided in this brochure.

**FEMA Map Service Center:** for maps and information about determining if your property is in a flood hazard area.

https://msc.fema.gov/webapp/wcs/stores/servlet/ FemaWelcomeView? storeId=10001&catalogId=10001&langId=-1

**City of Madras Community Development:** for information specific to your community regarding flood areas, sandbags, and building codes.

http://ci.madras.or.us/index.php/city-business/community-development/about-community-development/

The National Flood Insurance Program: for information about purchasing flood insurance for your home or business.

http://www.fema.gov/national-flood-insurance-program

**City of Madras Ordinances:** see Ordinance No. 469 for information about building codes within the flood plain.

http://ci.madras.or.us/index.php/city-business/ordinances-and-policies/ordinance-links/



Madras Floodplain, 2014. Photo by Community Service Center

Learn more about how Madras residents can take proactive steps to protect themselves and their homes or businesses from the impacts of flooding.







## Why plan for floods?

Aren't floods natural events? Can we really plan for them? Are we able to make floods "better" or "worse"?

The answer to all of these questions is YES! Floods are natural events caused by weather, but there are certain ways that city planning can make flood impacts better or worse

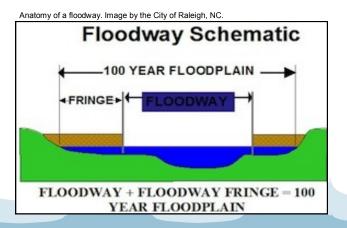
Certain areas are much more likely than others to be affected by flooding. This means that homeowners, businesses and the city can take certain actions to prepare those areas at risk of rising waters.

This brochure was created to combine some of the most vital information for homeowners and business owners whose properties may be at risk of flooding.

In this brochure you will find:

- How to determine whether your home is at risk.
- What steps you can take to minimize flood impacts.
- How flooding can provide benefits to the City of Madras.

Thank you for your interest in learning how to protect yourself and your community from the impacts of flooding!



## **Preparing for floods**

There is a high likelihood that some flooding will occur in Madras on any give year. That is why it is important to always be prepared for floods, even if the risk doesn't seem important now. The City of Madras has many resources to help you prepare for flooding in the immediate or distant future.

#### Flood Insurance

Flood insurance is required to receive a federally backed loan or mortgage on for properties in the floodplain. Otherwise, flood insurance is not required, but is available for anyone to purchase. See resources on reverse to learn where to find information about flood insurance.

## **Building Codes**

Before building, renovating, or adding on to structures within the floodplain, review the City of Madras' building codes as they relate to buildings within the flood hazard area. Building codes within the floodplain are stricter in order to minimize the damage done by rising flood waters.

## Sand Bags

When floodwaters are rising in Madras, the City will provide sandbags to business and homes at risk of flood damage. If your property is at risk, make a plan now for how you can transport sandbags to your home or business in the event of a flood.



City of Madras' sandbagging machine. Photo by the City of Madras

## Flooding: It's natural!

It is easy to think of flooding negatively, considering the dire effects it can have on homes, businesses, and communities. However, flooding is a natural process that can be beneficial for rivers and the species that depend on rivers for survival, including humans! Maintaining an adequate floodway and allowing rivers to run their course can provide a number of benefits to communities.

#### **Environment**

Rivers and streams are complicated and dynamic natural forces. Even ephemeral streams, streams such as Willow Creek that only flow during high-precipitation events, provide valuable habitat for birds, mammals and plants. Keeping streams free of trash and debris not only creates better habitat, it also allows the stream to drain large volumes of water effectively.

#### **Erosion Control**

Some strategies used to control flooding can increase erosion of stream banks. Hardened structures in the floodway that decrease flooding at one location can worsen the impacts of flooding downstream. Though every case is unique, this process can eat away at properties along the river's edge. Providing space for rivers to flood naturally can decrease the impacts of flooding downstream, and guard against property erosion.

#### Recreation

Land that is at a higher risk of flooding is sometimes unfairly considered wasted land. The truth is, many cities have invested in these areas as river greenways, or parks along river banks. This provides many benefits to the community by allowing space for the river to flood, keeping buildings away from hazardous areas, and providing a lovely place for residents to enjoy. Creating parks in flood hazard areas can decrease the negative impacts of flooding while creating amenities for the city's residents and visitors.

# HIGHLIGHTS OF THE COMMUNITY RATING SYSTEM



Summary created for the City of Madras

May 2014

## Lowering flood insurance prices through mitigation

The Community Rating System (CRS) is a voluntary federal program that rewards cities taking initiative to reduce the impact of flooding in their community. Participating cities can earn lower flood insurance premiums with the National Flood Insurance Program. CRS identifies 18 actions around flood mitigation and community education that can earn points to qualify a city for a corresponding class. Each class rating has a designated discount in flood insurance premiums available to all property owners within the flood plain.

Table 1 (below) shows the relationship between the CRS class, insurance discount, and points earned. Table 2 (reverse) lists the activities that will earn cities points, and lists the average number of points awarded for cities undertaking that activity. Actual points awarded will differ based on the city's circumstances. To be eligible for the CRS flood insurance discount, cities must complete activity 310, maintaining records of FEMA elevation certificates for new construction in the flood plain, and participate in the National Flood Insurance Program (NFIP).

Madras may already be undertaking a number of the eligible activities listed in Table 2. The average points earned, found in the rightmost column of Table 2 can help cities estimate what class rating they may currently qualify for, and determine likely activities they can pursue to increase their rating. The average points listed in Table 2 will earn a city a Class Rating of 6. More detailed information about earning points can be found in the link to the right.

Free webinars and information about applying for the Community Rating System are available on the FEMA website:

www.fema.gov/nationalflood-insurance-programcommunity-rating-system

## How can Madras apply for CRS?

Participation in CRS is voluntary. There is no application fee.

Cities must be in full compliance with the rules and regulations of the National Flood Insurance Program.

Table 1: Class rating based points earned

A city executive must appoint a primary CRS coordinator who will be the City's liaison with FEMA. The identified coordinator should be familiar with the city departments that handle flood-plain management and should have appropriate authority to make the decisions necessary to implement the program.

## Why participate in CRS?

The CRS is a way for cities to intentionally plan for flooding. The activities identified in Table 2 increase public awareness of flood risk and improve floodplain management. Better education and floodplain management can preserve life and property and reduce flood impacts. Cities can also reduce the rates that residence play for flood insurance by participating.

Table 1: Class rating and insurance discount based points earned

	Rate Class	Discount in Flood Hazard Area	Points required to receive credit
•	1	45 percent	4,500 +
	2	40 percent	4,000 - 4,499
	3	35 percent	3,500 - 3,999
	4	30 percent	3,000 - 3,499
	5	25 percent	2,500 - 2,999
	6	20 percent	2,000 - 2,499
	7	15 percent	1,500 - 1,999
	8	10 percent	1,000 - 1,499
٠	9	5 percent	500 - 999
	10	0 percent	0 - 499

## Table 2: What activities earn CRS credit?

The following table includes activities that can earn CRS credit. There are 18 activities that fall into four categories.

310 Elevation Complia 320 Map Inf 330 Outread and/or to 340 Hazard the flood 350 Flood F to flood F	<u>nformation</u> : Credits programs that advise people about the flood hazard, insurance, and was amage. Activities also provide data that insurance agents need for accurate flood insurance on <u>Certificates</u> : Maintain FEMA elevation certificates for new construction in the floodplain ance with this step is mandatory to participate in the program. <u>Formation Service</u> : Provide FIRM* information to people who inquire; publicize information the <u>Projects</u> : Send information about flood hazard, insurance and protection measures the natural and beneficial functions of floodplains.	•
310 Elevation Complia 320 Map Inf 330 Outread and/or to 340 Hazard the flood 350 Flood F to flood F	amage. Activities also provide data that insurance agents need for accurate flood insurance on Certificates: Maintain FEMA elevation certificates for new construction in the floodplain ance with this step is mandatory to participate in the program.  Formation Service: Provide FIRM* information to people who inquire; publicize information on the Projects: Send information about flood hazard, insurance and protection measures	rating 69 138
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330 Outread and/or to flood Fl	ch Projects: Send information about flood hazard, insurance and protection measures	
and/or to flood Flood F	<del></del> -	90
the floo  350 Flood F  to flood  360 Flood F		
to flood	<u>Disclosure</u> : Real estate agents advise potential purchasers of flood-prone property about d hazard; regulations require notice of hazard	19
	Protection Information: The public library and/or community's website maintain reference insurance and flood protection	24
	Protection Assistance: Give inquiring property owners technical advice on how to protect illdings from flooding, and publicize this service	53
400 <u>Mappin</u>	g and Regulations: Credits programs that provide increased protection to new developmen	t
410 <u>Addition</u>	nal Flood Data: Develop additional flood data for an area not mapped	86
	pace preservation: Guarantee that currently vacant floodplain parcels will be kept free evelopment	191
	Regulatory Standards: Require freeboard**; require soil tests for engineered foundations; egulations tailored to protect critical facilities or areas subject to special flood hazards	166
440 Flood D	Oata Maintenance: Keep flood property data on computer records	79
post-de	vater Management: Regulate new development throughout the watershed to ensure that evelopment runoff is no worse than pre-development runoff; Regulate new construction to see soil erosion and protect or improve water quality	98
500 Flood D	Damage Reduction: Credits programs that reduce the flood risk to existing development	
•	ain Management Planning: Prepare, adopt, implement, and update a comprehensive azard mitigation plan using a standard planning process.	115
520 <u>Acquisi</u>	tion and Relocation: Acquire and/or relocate flood-prone buildings out of the floodplain	213
	<u>Protection</u> : Protection of existing floodplain development by floodproofing, elevation, or tructural projects	93
	ge System Maintenance: Conduct periodic inspections of all channels and retention band remove debris as needed.	232
600 Flood F	Preparedness: Credits flood warning, levee safety, and dam safety projects	
	Varning Program: provide early flood warnings to the public, and have a detailed flood se plan keyed to flood crest predictions	93
	Safety: Maintain existing levees not otherwise credited in the flood insurance rating system to provide some flood protection	198
630 <u>Dam Sa</u> credit.	afety: All communities in a state with an approved dam safety program receive some	66

<sup>\*</sup>FIRM - Flood Insurance Rate Maps