Appendix B: Documentation

This appendix provides documentation of the planning process. Steering Committee meetings occurred over a two year period.

Eastern Oregon University convened a steering committee to oversee the NHMP development process. The steering committee had the following representatives:

- David Lageson, Director of Facilities and Planning
- Lon Whitaker, Vice President for Finance and Administration
- Laura Hancock, University Advancement
- Colleen Dunne-Cascio, Student Affairs
- Bryon Pearson, IT
- Ken Watson, P1erce Library
- Stephen Jenkins, Housing and Student Involvement
- Linda Overlock, Housing
- Pat Arnson, Disability Services
- Lara Moore, Finance and Administration
- Teresa Carson-Mastrude, Finance and Administration, Risk Management
- Bill Benson, Facilities and Planning
- Don Adams, Facilities and Planning
- Tim Seydel, Vice President for Admissions and Advancement
- TimWilson, Director of Enterprise Systems

Several meetings were held to facilitate the development of this NHMP.

August 11, 2011, Campus Convener meeting

- Review the NHMP requirements and the role of the Steering Committee with campus convener.

August 20, 2012, Steering Committee

- Review the NHMP requirements and the role of the Steering Committee.
- Review campus profile
- Risk Assessment work-session to discuss specific and relevant hazards
- Determine NHMP Mission and Goals
- Preliminary action item discussion
Natural Hazard Mitigation
Work Session

Meeting Purpose
- Provide information about the purpose of and requirements for Natural Hazard Mitigation Plans
- Gather information about risk incurred by EOU
- Draft action items for risk mitigation
- Discuss and confirm process for completing the plan
What is a NHMP?

Mitigation Defined...

A process for States and communities (and universities) to identify policies, activities and tools to implement mitigation actions. Mitigation is any sustained action taken to reduce or eliminate long-term risk to life and property from a hazard event. This process has four steps:

- organizing resources;
- assessing risks;
- developing a mitigation plan; and
- implementing the plan and monitoring progress.
The Disaster Mitigation Act of 2000

• Amends Stafford Disaster Relief Act of 1988.
• Reinforces importance of pre-disaster mitigation planning
• Set forth planning requirements for eligibility for Pre-Disaster Mitigation and Hazard Mitigation Grant Programs

Risk Reduction and Mitigation Pays

2005 Report Findings:

• $1 spent on mitigation saves society an average of $4.
• Of the communities studied, FEMA mitigation grants were a significant part of the community’s mitigation history and often led to additional loss reduction activities.
• Mitigation is sufficiently cost-effective to warrant federal funding on an ongoing basis both before disasters and during post-disaster recovery.
Planning for Disasters

Preparedness
- Education, Outreach, and Training

Business Continuity Plan
- Emergency Operations Plan

Response

Mitigation
- Pre-Disaster Mitigation Plan
- Post-Disaster Recovery Plan

Recovery

Mitigation Planning Opportunities

- Understand risks, sensitivities, and vulnerabilities
- Positioned to identify mitigation opportunities
- Reduces impact of hazards
- Saves lives & property
- Positioned to take action
- Supports rapid recovery
- Creates more sustainable campuses
The KEY is the Process

“Natural hazard mitigation planning is the **process** of figuring out how to reduce or eliminate the loss of life and property damage resulting from natural hazards such as floods, earthquakes, and tornadoes.”

*SOURCE: FEMA STATE AND LOCAL MITIGATION PLANNING how-to guide: Understanding Your Risks*

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Plan Components

**Introduction**
- Overview:
  - What is it?
  - Why do it?
  - Who’s responsible for it?
- Plan Methodology and Organization

**Community Profile**
- Critical Systems
- Built and Natural Environment
- Economic Generation
- Research Enterprise
- Administrative Structure

**Hazard Identification**
- Causes, Characteristics,
- History, Location, Extent
- Probability Assessments

**Vulnerability Assessment**
- Description of impacts to local community
- Assessment of hazard impacts on the built environment and critical systems
Plan Components

Risk Assessment
- Vulnerability
- Probability

Mitigation Actions
- Reduce risk and save lives
- Protect new and existing structures
- Address each hazard
- Reduce economic loss
- Identify partners in mitigation

Plan Maintenance
- Ongoing monitoring of mitigation actions
- Yearly maintenance schedule
- 5 year convener for FEMA update

FEMA Review Criteria
**Mission and Goals**

- **Mission Statement** - states the purpose and defines the primary function of the university’s Natural Hazards Mitigation Plan

- **Goals** - are guiding principles for the specific recommendations that are outlined in the action items

**FEMA Requirement - §201.6(c)(3)(i):**

- [The hazard mitigation strategy shall include a] description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.

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**Public Involvement**

**FEMA Requirement §201.6(b):**

*In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process shall include:*

(1) An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval.

(2) An opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia and other private and non-profit interests to be involved in the planning process;
Risk Assessment

The plan shall include a risk assessment that provides the factual basis for activities proposed in the strategy to reduce losses from identified hazards. Local risk assessments must provide sufficient information to enable the jurisdiction to identify and prioritize appropriate mitigation actions to reduce losses from identified hazards.

FEMA Requirement 3.2.1(c)(ii)(c)

The plan should describe vulnerability in terms of providing a general description of land uses and development trends within the community so that mitigation options can be considered in future land use decisions.

FEMA Requirement 3.2.1(c)(2)(i)

The risk assessment shall include a description of the location and extent of all natural hazards that can affect the jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.
Risk Assessment (Shall vs. Should)

- **Shall** (required)
  - Describe all natural hazards affecting campus.
  - Profile hazards: location, extent, previous occurrences, probability of future occurrences.
  - Summarize campus’s vulnerability to each hazard.

- **Should** (recommended)
  - Identify the types and numbers of vulnerable assets.
  - Estimate potential dollar losses.
  - Analyze development trends.

Mitigation Plan Actions

Your plan **SHALL**...

- Identify and analyze a comprehensive range of specific mitigation actions and projects for each hazard

- Identify actions and projects that reduce the effects of hazards on **new** buildings and infrastructure

- Identify actions and projects that reduce the effects of hazards on **existing** buildings and infrastructure

*Note: Also include Repetitive Flood Loss and NFIP Compliance

*44 CFR Section 2016
Prioritize, Implement, and Administer Actions

FEMA Requirement §201.6(c)(3) (iii):

[The mitigation strategy section shall include] an action plan describing how the actions... will be prioritized, implemented, and administered by the local jurisdiction.

Prioritization shall include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and their associated costs.

Implementation Through Existing Plans

FEMA Requirement §201.6(c)(4) (ii):

[The plan shall include a] process by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital improvement plans, when appropriate...
Monitor, Evaluate, Update

FEMA Requirement §201.6(c)(4)(i):
[The plan maintenance process shall include a section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.]

• Ongoing review
  – Sections vs. entire NHMP
  – Catalogue successes as they happen
  – Connect with other processes

Monitor, Evaluate, Update

Coordinating Body

Convener

Semi-Annual Meetings & Five Year Update
Adoption by the Local Governing Body

FEMA Requirement §201.4(c)(6)
- Documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval of the plan (e.g., City Council, County Commissioner, Tribal Council).

Continued Public Involvement

FEMA Requirement §201.6(c)(4) (iii):
[The plan maintenance process shall include a] discussion on how the community will continue public participation in the plan maintenance process.
Develop EOU Plan Components

Understanding Risk

Natural Hazard
Knowledge of Potential Catastrophic and Chronic Physical Events
- Rate of recurrence intervals
- Future probability
- Speed of onset
- Magnitude
- Duration
- Spatial extent

Vulnerable System
Exposure, Sensitivity and Resilience of:
- Population
- Economy
- Land Use and Development
- Infrastructure and Critical Facilities
- Cultural Assets
- Natural Resources

Risk of Disaster

Ability, Resources and/or Willingness to:
- evacuate
- mitigate
- respond
- recover

Source: USGS-ORENHazardCollaboration, 2008

Natural Hazard Mitigation Plan
Identify and characterize

Hazards
- Wildfire
- Drought
- Volcanic
- Severe Weather
- Flood
- Landslide
- Earthquake
- Others?

History and unique impacts to your campus
- Past events
- Causes
- Characteristics

Risk Assessment Exercise

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H=High
M=Moderate
L=Low

Probability: likelihood of a future major emergency or disaster within specific time period:
- High: incident likely within 10-35 year period
- Moderate: incident likely within 35-75 year period
- Low: incident likely within a 75-100 year period

Vulnerability: percentage of population or assets likely to be affected by a major emergency or disaster, as follows:
- High: More than 10% affected
- Moderate: 1-10% affected
- Low: Less than 1% affected

*Wildfire information in the CWPP
^Wind Storm vulnerability: Moderate
Risk Assessment Questions

Human Impact
Has this event occurred before?
1. If yes, what were the extent of injuries and deaths that occurred?
2. If yes or no, estimate the number of injuries and deaths that could result if this event occurred today.

Facilities Impact
Consider the vulnerability of your central campus facilities to this event.
1. Estimate the extent of damage to campus-wide facilities.
2. Considering the extent of damage to central campus facilities, estimate the total cost to respond to the event and repair or replace all damaged facilities.

Institutional Impact
If this event occurred on your campus today
1. Estimate the duration of interruption to campus-wide teaching and research activities, and business operations.
2. To what extent would this event negatively impact the campus reputation or public image over the long term?

Maintenance, Update, Outreach

- Plan Implementation
  - Prioritization of Actions: BCA
  - Implementation through Existing Programs

- Plan Maintenance

- Continued Public Involvement
- FEMA Plan Review
- Local Adoption