

Deschutes County
Natural Hazards Goal 7 Plan And Code
Review:
Floodplain Workshop

University of Oregon
Community Planning Workshop

April 9, 2015

Agenda

- * Overview of Project
- * Flood Risk in Deschutes County
- * Role of Land Use in Floodplain Management
- * Existing Deschutes County Programs
- * Review of County Program
- * Next Steps

Overview

Task 1

Project Kick-Off Meeting with County Staff Working Group

Task 2

County Code Review and NHMP Cross-reference

Task 3

Code Research:
Literature/Best Practice Review
Model Ordinances
Case Studies

Task 4

Work Sessions with Planning Commission and Board of County Commissioners

Flood Risk in Deschutes County

- * Probability
 - * Chance of flood event = High
 - * Flood event within the next 10 - 35 years
- * Vulnerability
 - * Impact of flood event = Low
 - * Low percentage of population and property affected by any one event

Development and Floodplain Management

- * Rate of Development
 - * 2000 to 2013 Pop. Growth: 41%
 - * 2013 to 2025 Anticipated Pop. Growth: 48%
- * Location of Development
 - * Since 2005 Land use permits in 100-year Floodplain: 50
 - * Generally located between La Pine and Sunriver on the Deschutes River

Programs and Policies

- * National Flood Insurance Program
 - * Federal insurance program for risk against flooding
 - * Regulation of floodplain development
- * Comprehensive Plan: Natural Hazards Policies
 - * Policy 3.5.10 Regulate development in designated floodplains identified on County Zoning Map based on FEMA regulations
 - * Policy 3.5.11 Review and revise County Code

Meeting Objectives

- * What options should we include in our report?
- * What additional information would be useful in understanding the implications of each option?

Review of County Comprehensive Plan Policies

Comprehensive Plan Policy 3.5.10:

Regulate development in designated floodplains identified on the Deschutes County Zoning Map based on Federal Emergency Management Act regulations.

- a) Participate in and implement the Community Rating System as part of the National Flood Insurance Program.*

COMMENT: Consider CRS higher standards:

432.e Lower Substantial Improvements Threshold

432.d Cumulative Substantial Improvements

431.a Prohibiting Fill

431.a Protecting Critical Facilities

432.a(3) Development Limitations

Review of County Comprehensive Plan Policies

Comprehensive Plan Policy 3.5.11 (f):

Make the Floodplain Zone a combining zone and explore ways to minimize and mitigate floodplain impacts.

COMMENT: Consider repealing the existing floodplain zones (18.96 and 18.108.190):

- Create one floodplain combining zone for Title 18, County Zoning
- Maintain existing floodplain combining zone for Title 19, Bend Urban Growth Boundary

Review of County Development Code

Flood Plain Zone: Purposes – 18.96.010: To implement the Comprehensive Plan Flooding Section; to protect the public from the hazards associated with flood plains; to conserve important riparian areas along rivers and streams for the maintenance of the fish and wildlife resources; and to preserve significant scenic and natural resources while balancing the public interests with those of individual property owners in the designated areas.

COMMENT: Consider expanding purpose statement:

- Minimize expenditure of public money
- Minimize need for rescue and relief efforts
- Minimize prolonged business interruptions
- Minimize damage to public facilities and utilities
- Maintain stable tax base

Review of County Development Code

Flood Plain Zone: Designated Areas – 18.96.020: When base flood elevation data has not been provided in the Flood Insurance Study, the Planning Director will obtain, review and reasonably utilize any base flood elevation or floodway data available from federal, state or other sources, in determining the location of a flood plain or floodway.

COMMENT: Consider explicit details regarding duties and responsibilities of the designated Local Floodplain Administrator:

- Oregon Model Floodplain Ordinance 4.3-1
 - Provide base flood elevation and freeboard

Review of County Development Code

*Flood Plain Zone: Conditional Uses Permitted – 18.96.040(B):
Material or equipment stored shall include only items which will not create a hazard to the health or safety of persons, property, animals or plant life should the storage area be inundated.*

COMMENT: Consider explicitly prohibiting storage of hazardous materials in floodplain:

- Model Washington NFIP-ESA Ordinance 5.3
- Does not apply to:
 - Existing facilities
 - Functionally dependent facilities

Review of County Development Code

Flood Plain Zone: Conditional Uses Permitted – 18.96.040(I): All new construction, expansion or substantial improvement of an existing dwelling, an agricultural related structure, a commercial, industrial or other non-residential structure, or an accessory building.

COMMENT: Consider higher standards:

- Reduce threshold of substantial improvements:
 - NFIP minimum 50% of market value of structure
- Apply standard to cumulative substantial improvements:
 - Over the lifetime of structure

Review of County Development Code

Flood Plain Zone: Prohibited Uses – 18.96.050: The list of prohibited uses is limited to marinas, boat slips, and boat houses on private property.

COMMENT: Definition and addition of critical facilities:

- Model Washington NFIP-ESA Ordinance 5.4
 - Construction of new critical facilities, to the extent possible, located outside the floodplain
- Oregon Model Floodplain Ordinance 5.7
 - Flood proofing to prevent toxic spills

Review of County Development Code

*Flood Plain Zone: Application for Conditional Use – 18.96.070(E):
The elevation of the lowest habitable floor and of any basement floor for any dwelling unit or structure.*

COMMENT (1): Consider specifically listing “below grade crawl spaces” in relation to elevation of the lowest habitable floor.

- Oregon Model Floodplain Ordinance 4.3.3(1)
- Example in Definitions section 18.04

Review of County Development Code

*Flood Plain Zone: Application for Conditional Use – 18.96.070(E):
The elevation of the lowest habitable floor and of any basement floor for any dwelling unit or structure.*

COMMENT (2): Consider explicitly stating the unintended use for human habitation of enclosed areas below the lowest floor:

- Oregon Model Floodplain Ordinance 4.3.6
 - Determine applicants with fully enclosed areas below the lowest floor that are 5ft or higher
 - Require applicants enter into a non-conversion deed declaration

Review of County Development Code

Flood Plain Zone: Criteria to Evaluate Conditional Uses – 18.96.080(B): Approval to alter or relocate a water course shall require notification to adjacent communities, the DLCD and Department of State Lands, prior to any such alteration or relocation and submit evidence to the Federal Insurance Administration.

COMMENT: Consider explicitly requiring applicant obtain Conditional Letter of Map Revision (CLOMR):

- Oregon Model Floodplain Ordinance 4.3.4(4)
 - Applicant responsible for data preparation supporting CLOMR & paying fees to FEMA

Review of County Development Code

*Flood Plain Zone: Criteria to evaluate Conditional Uses –
18.96.080(D)(4): Below-grade crawlspace is allowed subject to
the standards in FEMA Technical Bulletin 11-01.*

COMMENT: Consider including the FEMA Technical Bulletin language in the Deschutes County Code:

- Oregon Model Floodplain Ordinance 5.2-6
 - Definition & crawlspace code included in flood hazard development ordinance

Review of County Development Code

Flood Plain Zone: Criteria to evaluate Conditional Uses – 18.96.080(E):

- 1. All subdivision and partition proposals shall be consistent with the need to minimize flood damage.*
- 3. All subdivision and partition proposals shall have adequate drainage provided to reduce exposure to flood damage.*

COMMENT (1): Consider requirements regarding density of development and open space:

- Model Washington NFIP-ESA Ordinance 5.1
 - Proposed subdivision must have one or more new lots in the floodplain set aside for open space

Review of County Development Code

Flood Plain Zone: Criteria to evaluate Conditional Uses – 18.96.080(E):

- 1. All subdivision and partition proposals shall be consistent with the need to minimize flood damage.*
- 2. All subdivision and partition proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.*

COMMENT (2): Consider regulations to ensure subdivisions are serviced by adequate access roads:

- Model Washington NFIP-ESA Ordinance 5.1(E)
- Evacuation safety
- Surface of road at or above flood protection elevation (FPE) whenever possible

Review of County Development Code

Flood Plain Zone: Criteria to evaluate Conditional Uses – 18.96.080(E):

- 1. All subdivision and partition proposals shall be consistent with the need to minimize flood damage.*
- 3. All subdivision and partition proposals shall have adequate drainage provided to reduce exposure to flood damage.*

COMMENT (3): Consider requirement of filed notice on the final recorded subdivision plat:

- Model Washington NFIP-ESA Ordinance 5.1
 - Subdivisions located within floodplain, riparian habitat zone, or a channel migration

Review of County Development Code

Flood Plain Zone: Nonresidential Construction – 18.96.080(G)(2): New construction and substantial improvement of any commercial, industrial, or other nonresidential structure shall either have the lowest floor, including basement, elevated at least one foot above the level of the base flood elevation, or, together with attendant utility and sanitary facilities, shall:...

COMMENT: Consider provision for a Comprehensive Maintenance Plan and an Emergency Action Plan (EAP):

- Oregon Model Floodplain Ordinance 5.2.2(6) & (7)
- Assurance floodproofing protection maintained
- Assurance building operators enact EAP

Review of County Development Code

Flood Plain Zone: Manufactured Homes – 18.96.080(G)(3): All manufactured homes to be placed or substantially improved shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is at least one foot above the base flood elevation. Such manufactured homes shall be securely anchored to an adequately anchored foundation system subject to the provisions of Deschutes County Code 18.96.080(1).

COMMENT: Consider additional standard:

- Elevation of electrical crossover connection at least 12” above base flood elevation (BFE)

Review of County Development Code

County Zoning: Definitions - 18.04.030: As used in DCC Title 18 the following words and phrases shall mean as set forth in DCC 18.04.030.

COMMENT: Consider additional definitions from Oregon Model Floodplain Ordinance 2.0:

- “Below-grade Crawl Space”
- “Conditional Letter of Map Revision (CLOMR)”
- “Critical Facility”
- “Elevated Building”
- “Substantial Damage”

Next Steps

- * What didn't we cover?
- * We'll incorporate your direction and comments into the presentation to the Board of County Commissioners and final report.
- * Wildfire work session April 23rd
- * Board of Commissioners meeting May 18th