

Missing stakeholders. Several interviewees identified themselves as farmers with property in a flood plain or riparian area in Lane County, and the representative of the Soil and Water Conservation District does in some ways represent farmers. However, none of those interviewed came to the interview process because they were primarily farmers. Some stakeholders believe that it will be important to have strong representation of the farming interests.

Some stakeholders have reported that at the time of previous attempts to rewrite the riparian ordinance, the homeowners on the McKenzie River organized and strongly opposed the changes. Evidently, that homeowners' association has since disbanded, and the interview group does not include anyone who represents that specific interest group.

Perceptions of polarized opinions. Some stakeholders believe that certain groups have strongly held interests and opinions that are directly in conflict with others, and that have been so well established through previous experiences, that it will be difficult for them to work together in a collaborative process.

C. Information needed for decision-making

Interviewees generally reported that the background materials provided to interviewees, the July 8, 2009 EWEB Memo regarding Recommendations for Onsite Program Changes with attachments, and the Report from the EWEB Source Water Protection Land Use Analysis, provides useful and reliable information. It was pointed out that the data may not be as black and white as some have implied, and the situation on the McKenzie River may be somewhat different than in the county as a whole. But there appears to be agreement that generally the information provided and issues raised regarding impacts on downstream users can be applied to the County as a whole, and will be useful for a decision making process.

Some interviewees pointed out that the existing FEMA maps are old and no longer accurate for determining floodplain locations. However, it was also pointed out that DOGAMI has 'LIDAR' based maps for most, if not all, of the Willamette basin. Many interviewees believe that the other pertinent data and mapping that will be needed are available through the County and LCOG, and the GIS. Some interviewees would like to see the development of more data and research, while others assert that it will take too much time to gather more data, and that the existing data is adequate for making decisions regarding the riparian and flood plain ordinances.

Some interviewees requested information regarding the likelihood of contamination for the various water systems. Others pointed out that this information may be available from DEQ who has source water assessments for almost every water system in Lane County.

Other requested information includes:

- Analysis of the costs to homeowners/developers/public of each proposed regulation or incentive program.

- Analysis of the impact of proposed regulations on the amount of land available for development.
- A land values assessment to address claims for loss of value.
- A legal analysis of what is legally defensible in relation to property rights.

Several interviewees pointed out that there are ordinances from other jurisdictions within and outside Oregon that could be used as models for Lane County, so that this group does not have to “reinvent the wheel.” Some suggested that models from Oregon, that have already received LCDC approval would be best. The 2001, Version 1, draft ordinance that was created in an earlier process for revising the county regulations was also identified as a source of good information and ordinance language.

As there appear to be differing understandings of the substance of the current riparian and floodplain ordinances, it would be valuable for a stakeholder group to receive, early in the process, some explanation of the current regulations and the process through which those regulations are implemented.

IV. Process Recommendations

A. Criteria for assessment

This analysis and recommendations are provided as a proposal for whether and how to move forward with a collaborative approach. The parties can accept, reject, or modify these process recommendations. Oregon Consensus will work with the parties in making the decisions on whether and/or how to move forward with a collaborative approach.

In assessing whether the Lane County riparian and flood plain issues are amenable to a collaborative resolution, it is important to identify whether the key elements or characteristics are present that are likely to make collaboration productive and successful. A consensus-seeking, agreement-focused process is more likely to succeed if it has the following characteristics:

- Clear Objectives. The parties can agree on the overall objectives for the collaborative process (whether it be an agreement on a course of action, the identification of new options, a joint fact finding on the impacts of various options, joint projects, improved communication about interests and concerns, or another clearly articulated objective.)
- Manageable Issues. The parties can agree on a manageable number of interdependent or related issues. There must also be a sufficiently well developed factual basis on which to hold a meaningful discussion and resolution of the issues.
- Identifiable representative parties. The parties interested in or affected by the outcome of the collaboration are readily identifiable, capable of identifying from among themselves the participants that can adequately represent all affected

interests, and few enough in number to allow for a manageable process. Participants are able to represent and reflect the interests of their constituencies.

- Good Faith Participation. The parties can come to the table with genuine interest in participating in good faith. They feel themselves as likely, if not more likely, to achieve their overall goals using a collaborative approach as they would through whatever alternatives are available to them.
- Adequate Resources and Time. The parties can obtain adequate resources to participate, including technical support and there is adequate time to conduct a meaningful and well designed process.
- Action-Forcing Deadline. There is some sort of legislative, administrative or judicial deadline or opportunity, or some other forcing mechanism requiring a decision within the foreseeable future.
- No Delay. The collaborative effort will not cause unreasonable delay.
- Implementation Mechanism. A mechanism exists to implement a consensus agreement, if one is reached.

OC considered the above elements as it analyzed the assessment interview results and utilized these characteristics to assist in evaluating the feasibility of initiating a proposed collaboration as well as the capacity of the parties to complete the process successfully. It is clear from the information obtained through the interviews that there are challenges to many of these elements. However, the interviewees consistently expressed a willingness to engage in a collaborative process, so OC is making the following recommendations.

B. Recommendations for Proceeding with a Collaborative Process

In the interviews stakeholders identified a wide range of problems, causes for the problems, and approaches to addressing those problems. An initial task for a stakeholder group will be to reach agreement on the issues that will be addressed by the group in a collaborative process. In determining which issues can and should be addressed, the available time and resources for the process will be significant factors, as will the scope of authority of the County.

Two-step Process. The first step would be to bring together a group of stakeholders to accomplish this initial task of identifying the issues that will be addressed, before actually initiating a full collaborative process. This preliminary meeting would allow the group to explore the potential for working together without actually convening a full-fledged process, and could address the concerns many stakeholders expressed about the potential for the group to work together.

There are several essential process elements that stakeholders typically address in the initial stages of a collaborative group process.

Identifying the issues, objectives and outcomes is one of those essential elements, which could be addressed in an initial meeting. At this time, there appears to be a willingness by the stakeholders to discuss certain issues, including:

- Enforcement of county regulations
- Setbacks, and what is allowed within the setbacks, for the riparian areas
- Limits on development in the floodplain
- The use of incentives, in addition to or in replacement of prescriptive regulations
- Increased public education efforts

As enforcement of the county regulations was consistently identified as a significant issue, it will be important that the extent to which enforcement can be reviewed be agreed upon at the beginning of the process.

Other essential process elements that could be addressed at this initial meeting could be:

Establishing process leadership to keep the group functioning in an organized, constructive and productive manner. As Lane County asked OC to assist in the convening of a collaborative process, and the county staff have the capacity to provide the organizational management needed, it is appropriate for the County to act as the convenor for the process. It is not unusual for the convenor to also participate in the collaborative process, so being the convenor will not prevent Lane County from full participation.

Ensuring good faith participation, by making sure that all necessary parties have something to gain by participating in a collaborative process. Some parties identified an attractive alternative to a collaboratively negotiated agreement as a means to accomplish their goals. It will be necessary to craft a process that will offer enough likelihood of meeting or exceeding their goals or expectations to bring them to and keep them at the table.

For some interviewees, the belief that there is a very short timeline for accomplishing their goals is a serious, but not insurmountable barrier to participation in a collaborative process. Some stakeholders interests in maintaining the current regulations or minimizing government involvement in their businesses and lives has some interviewees concerned that those stakeholders will use the process to delay or prevent any changes being adopted. The initial process meeting can help assure stakeholders that a timely process can be developed and ensure that all stakeholders agree to good faith participation with the intent to work for a collective outcome.

OC could provide facilitation services for this first step. Upon completion of this initial step, the facilitator can help the parties decide whether to and how to proceed with convening a full collaborative process.

Who Should Participate?

In the initial first step, OC recommends that all the interviewees be invited to participate.

In the full collaborative process, the stakeholder group should include at least one representative from each of the interest groups, including relevant state and local government agencies, environmental groups, residential property owners, the development industry, private and public water providers, septic system provider/servicers, recreational interests, watershed councils and farmers. The stakeholder group should also include representatives from the coastal, central and valley portions of the county.

Several of the potential stakeholders who were interviewed indicated that their participation in a collaborative process may be best limited to providing information and/or technical support. If a full collaborative process is convened, the stakeholders may want to create a technical support/advisory group from these stakeholders, and others who are willing and able to support the process.

Some of the interviewees prefer not to take positions on proposed county regulations. They do want to be kept informed of the process, and are willing to provide technical assistance, and to help educate the public during and after completion of the process.

Some interviewees indicated that they do not have an interest in or stake in the outcome of the proposed collaborative process as long as the issues are limited to changes to the riparian and flood plain ordinances, and any riparian setback regulations are no more limiting than those imposed by the Forest Practices Act.

Attachment A

Lane County Assessment Report

ASSESSMENT INTERVIEWEES

- Middle Fork Willamette Watershed Council, Eve Montanaro, Executive Director
- Coast Fork Willamette Watershed Council, Pam Reber, Executive Director:
- McKenzie Watershed Council, Larry Six, Executive Director,
- Siuslaw Watershed Council, Liz Vollmer-Buhl, Executive Director:
- Soil & Water Conservation District, Upper Willamette, Paul Reed, Director
- Oregon Department of Environmental Quality, Randy Trox, Onsite Program Coordinator
- City of Cottage Grove, Amanda Ferguson, Planner
- Oregon Department of Human Services, Tom Pattee, and Shawn Stevenson, Drinking Water Program
- Cottage Grove Department of Public Works, Jan Wellman, Director
- Lane County Department of Public Works, George Ehlers, Environmental Health Specialist
- Territorial Land Company, Inc., Jim Belknap, Principal Broker
- Lane County Home Builders Association, Laura Potter, Director of Government Affairs
- Lanfear Consulting, Thom Lanfear, Planning Consultant
- Law Office of Bill Kloos, PC., Bill Kloos, Attorney
- Springfield Utility Board
 - Chuck Davis, Water Quality Manager
 - Amy E. Chinitz, Water Quality Protection Coordinator
 - Doug Keeler, Water Engineering Operations Manager
- South Coast Water District & Oregon Water Services, Dan Reitz
- McKenzie River Trust, Joe Moll, Executive Director
- Land Watch, Lane County, Robert Emmons, President
- Nena Lovinger, Fall Creek, OR
- Giustina Land & Timber Co., Cary Hart, Chief Forester
- Tom Bowerman, Lane County, OR
- George Grier, Springfield, OR
- Wesley Voth, Mapleton, OR
- Caddis Fly Angling Shop, Chris Daughters
- McKenzie River Guides, Dana Burwell
- Leisure Excavating, L.L.C., Gary Rose

Attachment B

Lane County Assessment Report

Interview Questions

1. Do you believe your drinking water or the drinking water in Lane County in general is currently safe and will continue to be safe in the future? Why or why not?
2. What, if any, are the threats to safe drinking water in Lane County?
3. Do you believe that development near rivers currently poses a threat to life or safety as a result of flooding or other natural river movement, or that it will pose a threat in the future? Why or why not?
4. Are current county regulations effectively dealing with these issues? Why or why not?
5. What, if any, changes should be made to county ordinances to address these issues?
6. Are there other ways these issues could be addressed and who should be responsible for addressing/resolving these issues?
7. You've been given some background information. Would you rely on this information in developing solutions? Why or why not?
8. What other information is needed to resolve these issues? Where would you obtain this other information?
9. What kinds of information can you/your agency provide to a stakeholders group?
10. If a collaborative process were initiated, would you/your group want to participate? Why or why not?
11. Do you have specific concerns you would like to address before you will agree to participate?
12. Who else do you think should be involved to make the effort successful?
13. How do you think the other stakeholders would answer the above questions?
14. Do you have any questions for Oregon Consensus?

Issues, Threats and Identified Ordinance Deficiencies Related to the Protection of Drinking Water and Life-Safety within Floodplains and Riparian Areas of Rural Lane County		Regulatory Mechanisms					Nont Regulatory Approaches				
This analysis was performed in accordance with the Rural Lane County Drinking Water Protection Policy (June 2015) and adopted by the Board of Directors. The analysis identifies deficiencies in existing ordinances and regulations related to drinking water protection and life safety within floodplains and riparian areas of Rural Lane County.		Revised Floodplain Ordinance	Revised Riparian Ordinance	Drinking Water Protection Ordinance	Local Ordinance	County Ordinance	State Water Quality Control Ordinance	Public Education Outreach	Public Access to Information	Financial Assistance Programs	Secondary Enforcement Mechanisms
4.1	Use of pesticides and herbicides for agricultural and nonagricultural purposes is a concern			X			X	X		X	
4.2	Private and abandoned wells can be a conduit for contaminants			X				X			
4.3	High nitrate levels from a variety of sources are present in groundwater			X		X	X	X	X	X	
4.4	Hazardous releases from stored household chemicals during flood events is possible	X		X				X		X	
4.5	High risk uses and facilities sited in proximity to drinking water source areas	X	X	X	X						X
4.6	Unfenced leachate from drainfields, dumpsters, fuel tanks, etc. that are inundated during flood events			X		X		X		X	
4.7	Livestock waste and erosion/sedimentation issues related to livestock		X	X			X	X	X	X	X
4.8	Erosion and sedimentation caused by development on sensitive soils and slopes		X	X			X	X	X	X	X
5.1	Riverine channel erosion / migration needs to be studied and possible regulated				X						X
5.2	Consider regulating development in riparian areas based on degree of slope		X				X	X	X		
5.3	Revetments placed without proper review and permitting			X				X			
5.4	Exceedence of TMDL parameters in Willamette Basin for temperature, bacteria and mercury	X	X	X				X	X	X	
5.5	Exceedence of TMDL parameters in Siuslaw Basin for temperature, bacteria, dissolved O2 and sediment	X	X								
5.6	Catastrophic dam failure - current floodplain regulations do not mitigate threat of dam failure	X						X			
5.7	Limit impervious surfaces			X			X				X
5.8	Limit erosion and sedimentation during construction			X			X	X			X

2010 Lane Code Floodplain Ordinance Amendment & Proposed Drinking Water Protection Overlay Zone - Tentative Project Meeting Calendar

DATE	MEETING/PRODUCT	TOPICS
January 13, 2010	BCC Meeting Regarding Cedar Creek	Direction to LMD on Future Project Status Reports
March 17, 2010	Report to BCC	Project Status
April 5, 2010	OC Stakeholder Meeting	Report on Assessment and Next Steps
April 28, 2010	Report Back to BCC	Project Status
May 24, 2010	Technical Advisory Comm. Meeting	Draft of Flood Ordinance
June 4, 2010	Technical Advisory Comm. Meeting	Draft of Flood Ordinance and SWPQZ Mapping
June 10, 2010	State WRD Meeting	State and Local Water Quality Protection Efforts
June 23, 2010	Report Back to BCC	Project Status
Phase 3 - Post Acknowledgment Plan Amendment Process		
DATE	MEETING/PRODUCT	TOPICS
TBD	Technical Advisory Comm. Meeting	TBD
July 5, 2010	Work Session w/ LCPC	Floodplain Ordinance Amendments
July 20, 2010	Work Session w/ LCPC	Floodplain Ordinance Amendments
August 3, 2010	Work Session w/ LCPC	Drinking Water Overlay Zone
August 17, 2010	Work Session w/ LCPC	Drinking Water Overlay Zone
August 20, 2010	45 Day Notice to DLCD Due	Notice for 10/05 1st Evidentiary Hearing
October 5, 2010	1st Public Hearing w/ LCPC	Proposed FAPA Hearing and Deliberations
October 19, 2010	Cont. Public Hearing w/ LCPC	Continuation of 10/5 Hearing, if Necessary
October 27, 2010	Board of Commissioners Meeting	1st Reading and Setting of Public Hearing
November 2, 2010	Public Hearing w/ LCPC	Continuation of 10/5 Hearing, if Necessary
November 10, 2010	Public Hearing w/ BCC	2nd Reading/ Public Hearing
November 24, 2010	Public Hearing w/ BCC	3rd Reading/ Continued Public Hearing

Special Flood Hazard Zones in the Vicinity of Mapleton

Legend

- State Highways
- Parcels
- ▨ A
- ▩ AE
- AO
- D
- FW
- X
- ▨ X - 500 Year Floodplain



12 800

**FLOODPLAIN COMBINING ZONE (/FP-RCP)
RURAL COMPREHENSIVE PLAN**

16.244 Floodplain Combining Zone (/FP-RCP).

(1) Purpose. It is the purpose of this section to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas. The provisions of this section are designed to:

- (a) Protect human life and health.
- (b) Minimize expenditure of public money and costly flood control projects.
- (c) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public.
- (d) Minimize prolonged business interruptions.
- (e) Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, and streets and bridges located in areas of special flood hazards.
- (f) Help maintain a stable tax base by providing for the sound use and development of areas as special flood hazard so as to minimize future flood blight areas.
- (g) Ensure that potential buyers are notified that property is in an area of special flood hazard.
- (h) Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

(2) Methods of Reducing Flood Losses. In order to accomplish its purpose, this section includes methods and provisions for:

- (a) Restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities.
- (b) Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction.
- (c) Controlling the alteration of natural floodplains, stream channels and natural protective barriers, which help accommodate or channel flood waters.
- (d) Controlling filling, grading, dredging and other development, which may increase flood damage.
- (e) Preventing or regulating the construction of flood barriers, which will unnaturally divert flood waters or which may increase flood hazards in other areas.

(3) Lands to Which This Section Applies. This section shall apply to all areas of flood hazard within Lane County, and overlay the regulations of the underlying zone.

(a) Areas of flood hazard for Lane County under the jurisdiction of the Rural Comprehensive Plan are identified by the Federal Insurance Administration in a scientific and engineering report entitled "THE FLOOD INSURANCE STUDY FOR LANE COUNTY, OREGON UNINCORPORATED AREAS", with accompanying Flood Insurance Rate Maps.

(b) Areas of flood hazard shall also include any land area designated by the Director as susceptible to inundation of water from any source where the above-referenced maps have not identified any special flood areas.

(c) Flood hazard areas shall be adopted by Board Order, made a part of Lane Manual (LM 11.020) and filed in the office of the Department. Such studies shall form the basis for the administration and implementation of this section.

(4) Warning and Disclaimer of Liability. The degree of flood protection required by this section is considered reasonable for regulatory purposes. Larger floods can and will occur on rare occasions. Flood heights may be increased by human-made or

natural causes. This section does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This section shall not create liability on the part of Lane County, any officer or employee thereof, for any flood damages that result from reliance on this section or any administrative decision lawfully made hereunder.

(5) Development Subject to Director Approval. Approval shall be obtained before construction or development begins within any area of special flood hazard. Approval shall be required for all structures, manufactured homes, and "development" as this term is defined in LC 16.244(6). Application for approval shall be filed with the Department pursuant to LC 14.050.

(6) Definitions. Except as otherwise provided in LC 16.244, the definitions below shall be used for LC 16.244.

Area of Special Flood Hazard. The land in the floodplain within a community subject to a one percent chance of flooding in any given year.

Base Flood. A flood that has a one percent chance of being equaled or exceeded in any given year.

Basement. Any area of a building having its floor subgrade (below ground level) on all sides.

Development. For the purposes of LC 16.244, development is defined in LC 16.090, and shall include dredging, paving, and drilling operations and the storage of equipment and materials.

Existing Manufactured Home Park or Subdivision. Existing manufactured home park or subdivision means a manufactured home park for which the construction of facilities for servicing the lot on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, either final site grading or the pouring of concrete pads and the construction of streets) are completed before December 18, 1985 the effective date of Lane County's conversion to the Regular Flood Insurance Program.

Expansion to an Existing Manufactured Home Park or Subdivision. Expansion to an existing manufactured home park or subdivision means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, either final site grading or pouring of concrete pads, or the construction of streets).

Flood or Flooding. A general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland or tidal waters and/or the unusual and rapid accumulations and runoff of surface waters from any source.

Flood Elevation Determination. A determination by the Administrator of the water surface elevations of the base flood from the approved flood hazard studies.

Flood Hazard Boundary Map, (FHBM). An official map of the County furnished by the Federal Insurance Administration, labeled a Flood Hazard Boundary Map (FHBM) and delineating the boundaries of flood hazard areas.

Flood Insurance Rate Map (FIRM). The official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

Flood Insurance Study. The official report provided by the Federal Insurance Administrations that includes flood profiles and the water surface elevation of the base flood.

Floodplain. A physical geographic term describing any land area susceptible to being inundated by water from any source.

Floodplain Management. The operation of an overall program of corrective and preventative measures for reducing flood damage, including, but not limited to, emergency preparedness plans, flood control works and floodplain management regulations.

Floodplain Management Regulations. This Floodplain ordinance, together with building code requirements, health regulations and any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

Floodproofing. Any combination of structural and nonstructural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

Floodway, Regulatory. The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the waters of a base flood without cumulatively increasing the water surface elevation more than one foot.

Start of Construction. For the purposes of LC 16.244, the start of construction is defined in LC 16.090, and shall include the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

Structure in a Flood Hazard Area. A walled and roofed building, a mobile home or a tank used in the storage of gas or liquid which is principally above ground.

Substantial Improvement. Any repair, reconstruction or improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure either (a) before the improvement or repair is started, or (b) if the structure has been damaged, and is being restored, before the damage occurred. For the purpose of this definition "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however, include either (1) any project or improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions, or (2) any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.

(7) Designation of Administrator. The Director shall:

(a) Review all development applications to determine that the permit requirements of this section have been satisfied.

(b) Review all development applications to determine that all necessary permits have been obtained from those Federal, State or Local governmental agencies from which prior approval is required.

(c) Review all development applications to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of LC 16.244(8)(d) are met.

(d) When base flood elevation data has not been provided in the Flood Insurance Study for Lane County, Oregon unincorporated areas, the Director shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a Federal, State or other source in order to administer this section.

(e) Where base flood elevation data is provided through the Flood Insurance Study or required as in LC 16.244(7)(d), obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.

(f) For all new or substantially improved flood-proofed structures:

(i) Verify and record the actual elevation (in relation to mean sea level) to which the structure was flood proofed; and

(ii) Maintain the flood-proofing certifications required for elevation of nonresidential construction in zones A1-10, AH and AE.

(g) Maintain for public inspection all records pertaining to the Provisions of this section.

(h) Notify adjacent communities and the Department of Land Conservation and Development prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.

(i) Require that a program of periodic inspection and maintenance be provided with the altered or relocated portion of said watercourse so that the flood carrying capacity of the watercourse is not diminished.

(j) Make interpretation, where needed, as to exact location of the boundaries of areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). A person contesting the location of the boundary may appeal the interpretation to the Hearings Official as provided in LC 14.500.

(8) Provisions for Flood Hazard Reduction. In all areas of flood hazard, the following standards are required:

(a) Provisions applicable to Unnumbered A, A1-10, AH and AE zones:

(i) All new construction and substantial improvements shall be constructed with approved materials and utility equipment resistant to flood damage.

(ii) All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

(iii) Electrical, heating, ventilation, plumbing and air-conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

(b) Review of Building Permits. Where elevation data is not available either through the Flood Insurance Study or from another authoritative source, applications for building and manufactured home placement permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness shall include the use of historical data, high water marks, photographs of past flooding, etc., where available.

(c) Floodways. Located within areas of special flood hazard established in LC 16.244(3) are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles and erosion potential, the following provisions apply:

(i) Prohibit encroachments, including fill, new construction, substantial improvements and other development unless certification by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge. This evidence shall utilize hydrologic and hydraulic analyses performed in accordance with standard engineering practices.

(ii) Where base flood elevations have been provided but floodways have not, the cumulative effect of any proposed development, when combined with all other existing and anticipated development, shall not increase the water surface elevation of the base flood more than one foot at any point.

(iii) If LC 16.244(8)(c)(i) is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions for development in zones A1-30, AH and AE.

(iv) Subdivision and partitioning of land for residential purposes is prohibited if land is located entirely within the Floodway.

(d) Development in areas of special flood hazard shall also comply with the provisions in *Table 1: Provisions for Flood Hazard Reduction*.

Table 1: Provisions for Flood Hazard Reduction

Flood Zone	Foundations and Anchoring
Unnumbered A	<ol style="list-style-type: none"> (1) All new construction and substantial improvements shall be anchored to prevent flotation, collapse and lateral movement of the structure. (2) All manufactured homes must likewise be anchored to prevent flotation, collapse and lateral movement, in accordance with the State of Oregon, Manufactured Dwelling Standard.
A1-30, AH and AE	<ol style="list-style-type: none"> (1) All new construction and substantial improvements subject to less than 18 inches of flood water during a 100-year flood shall be anchored to prevent flotation, collapse and lateral movement. (2) All manufactured homes subject to less than 18 inches of flood water during a 100-year flood shall be anchored and/or supported to prevent flotation, collapse and lateral movement, in accordance with the State of Oregon, Manufactured Dwelling Standard. (3) All new construction, substantial improvements and manufactured homes not in an existing manufactured home park or existing manufactured home subdivision subject to 18 inches or more of flood water during a 100-year flood, shall be anchored to prevent flotation, collapse, and lateral movement which may reasonably occur independently or combined. Designs for meeting this requirement shall be certified by an Oregon registered engineer or architect. (4) All manufactured homes in existing manufactured home parks and existing manufactured home subdivisions shall be anchored to prevent flotation, collapse, and lateral movement, in accordance with the State of Oregon, Manufactured Dwelling Standard. (5) Foundations for all new construction, substantial improvements, and manufactured homes that are not in an existing manufactured home park or existing manufactured home subdivision subject to 18 inches or more of flood water during a 100-year flood or located within a designated floodway, shall be certified by an Oregon registered professional engineer or architect to meet the following minimum foundation requirements: <ol style="list-style-type: none"> (a) concrete footings sized for 1000 psf soil pressure unless data to substantiate the use of higher values are submitted. (b) footings extending below the frost line. (c) reinforced concrete, reinforced masonry, or other suitably designed supporting systems to resist all vertical and lateral loads which may reasonably occur independently or combined.

	(6) All Manufactured homes located in an existing manufactured home park or existing manufactured home subdivision shall be supported in accordance with the State of Oregon, Manufactured Dwelling Standard.
Flood Zone	Utilities
Unnumbered A	<p>(1) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.</p> <p>(2) New and replacement public or community sewerage facilities shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters; and</p> <p>(3) Individual sewerage facilities shall be located to avoid impairment to them or contamination from them during flooding.</p>
A1-30, AH and AE	<p>(1) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system. Public water systems which utilize wells for a source(s) shall be constructed such that the top well elevation is at least one foot above the 100-year flood elevation.</p> <p>(2) New and replacement public or community sewerage facilities shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters.</p> <p>(3) Individual sewerage facilities shall be located to avoid impairment to them or contamination from them during flooding.</p>
Flood Zone	Elevation: Residential
Unnumbered A	New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated two feet above the highest adjacent grade. Crawlspace construction is outlined in FEMA Technical Bulletin 11-01 entitled "Crawlspace Construction of Buildings located in Special Flood Hazard."
A1-30, AH and AE	New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to one foot above base flood elevation. Crawlspace construction is outlined in FEMA Technical Bulletin 11-01 entitled "Crawlspace Construction of Buildings located in Special Flood Hazard."
Flood Zone	Elevation: Nonresidential
Unnumbered A	New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated two feet above grade; or, together with attendant utility and sanitary facilities, shall be flood-proofed to a level two feet above the highest adjacent grade, so the structure is watertight with walls substantially impermeable to the passage of water.
A1-30, AH and AE	New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated to a level at least one foot above the base flood elevation; or, together with attendant utility and sanitary

	<p>facilities shall:</p> <ul style="list-style-type: none"> (a) be flood-proofed to one foot above the base flood level, so the structure is watertight with walls substantially impermeable to the passage of water; (b) have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; (c) be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of the structural design, specifications and plans. Such certification shall be provided to the official as set forth in LC 16.244(7)(f)(ii). Nonresidential structures that are elevated, not flood-proofed, must meet the same standards as residential construction of fully enclosed areas below the lowest floor in zones A1-30, AH and AE. (d) Applicants flood-proofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the flood-proofed level (e.g., a building constructed to the base flood level will be rated as one foot below that level).
Flood Zone	Elevation of Manufactured Homes
Unnumbered A	<ul style="list-style-type: none"> (1) All manufactured homes not in an existing manufactured home park or subdivision shall have the lowest floor elevated two feet above the highest adjacent grade. (2) All manufactured homes within an existing manufactured home park or subdivision shall be elevated such that the underside of the floor of the manufactured home is three feet above the finish grade.
A1-30, AH and AE	<ul style="list-style-type: none"> (1) All manufactured homes that are placed or substantially improved within Zones A1-30, AH and AE, (i) on sites outside of a manufactured home park or subdivision, (ii) on sites in a new manufactured home park or subdivision, (iii) on sites in an expansion to an existing manufactured home park or subdivision, or (iv) on sites within an existing manufactured home park or subdivision and upon which manufactured homes have incurred substantial damage as the result of a flood, shall be elevated on a permanent foundation such that the underside of the floor of the manufactured home is elevated to a height of one foot above the base flood elevation. (2) All manufactured homes to be placed or substantially improved on sites in an existing manufactured home park that are not subject to the provisions of LC 16.244(8)(d), paragraph (1) "Elevation of Manufactured Homes in Flood Zone A1-30, AH and AE" shall be elevated so that either (i) the underside of the floor of the manufactured home is one foot above the base flood level, or (ii) the manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height

	above grade.
Flood Zone	Elevation of Recreational Vehicles
A1-30, AH and AE	Recreational vehicles shall (i) be on the site for fewer than 180 consecutive days and be fully licensed and ready for highway use, or (ii) shall satisfy the permit requirements of LC 16.244(5) and the requirements for elevation of manufactured homes in zones A1-30, AH and AE and be anchored to prevent flotation, collapse, and lateral movement. "Ready for highway use" means that the recreational vehicle is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.
Flood Zone	Enclosed Areas
Unnumbered A	<p>Fully enclosed areas below the lowest floor shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect, or must meet or exceed the following minimum criteria:</p> <ul style="list-style-type: none"> (a) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. (b) Openings shall be located to allow unrestricted cross-flow of floodwaters through the enclosed area from one side to the other. (c) Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
A1-30, AH and AE	<p>For residential construction, fully enclosed areas below the lowest floor shall be designed to automatically equalize hydrostatic flood forces in exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:</p> <ul style="list-style-type: none"> (a) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. (b) Openings shall be located to allow unrestricted cross-flow of floodwaters through the enclosed area from one side to the other. (c) Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of flood waters.
Flood Zone	Roads
Unnumbered A	Adequate provisions shall be made for accessibility during a 100-year flood, so as to ensure ingress and egress for ordinary and emergency vehicles and services during potential future flooding.

A1-30, AH and AE	<p>(1) Adequate provisions shall be made for accessibility during a 100-year flood, so as to ensure ingress and egress for ordinary and emergency vehicles and services during potential future flooding.</p> <p>(2) No road surface of any new street, road or access road shall be at an elevation less than one foot below the base flood height.</p>
Flood Zone	Subdivisions and Partitions
Unnumbered A	<p>(1) All subdivision proposals shall be consistent with the need to minimize flood damage;</p> <p>(2) All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage;</p> <p>(3) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and</p> <p>(4) Where base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated for subdivision proposals and other proposed developments which contain at least 50 lots or five acres (whichever is less).</p>
A1-30, AH and AE	<p>(1) All subdivision and partitioning proposals shall be consistent with the need to minimize flood damage.</p> <p>(2) All subdivision proposals shall have adequate drainage to reduce exposure to flood damage, including returning water.</p> <p>(3) 100-year flood elevation data shall be provided and shown on final partition maps and subdivision plats. Applicant must show the boundaries of the 100-year flood and floodway on the final subdivision plat.</p> <p>(4) A permanent monument shall be established and maintained on land partitioned or subdivided showing the elevation in feet above mean sea level. The location of such monument shall be shown on the final partition map or subdivision plat.</p> <p>(5) All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.</p>

(9) Emergency Permits. The Director may issue an emergency permit orally or in writing:

(a) If issued orally, a written permit shall follow within five days confirming the issuance and setting forth the conditions of operation.

(h) Emergency permits may be issued to protect existing shorelines or structures under immediate threat by flood or storm waters or for the prevention of channel changes that threaten immediate and significant loss of property.

(c) A representative of Lane County may inspect the project site to verify that an emergency condition exists and that the emergency action will not significantly impact water resources.

(d) Emergency permits shall be in effect for the time required to complete the authorized emergency action and shall not exceed 60 days.

(e) The emergency permit shall be circulated for public information within 10 days of issuance.

(f) The Director shall condition emergency permits to protect and conserve the waters of this County.

(10) Variance Procedures.

(a) Scope. Variance to a requirement standard or procedure of this section, with respect to the provisions for flood hazard reduction, may be approved by the Director if an application is submitted, reviewed and approved pursuant to the criteria for approving variances in LC 16.256, and the application complies with the additional criteria listed below.

(i) Variances may be issued for the reconsideration, rehabilitation or restoration of structures listed on the National Register of Historic Places of the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this subsection.

(ii) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

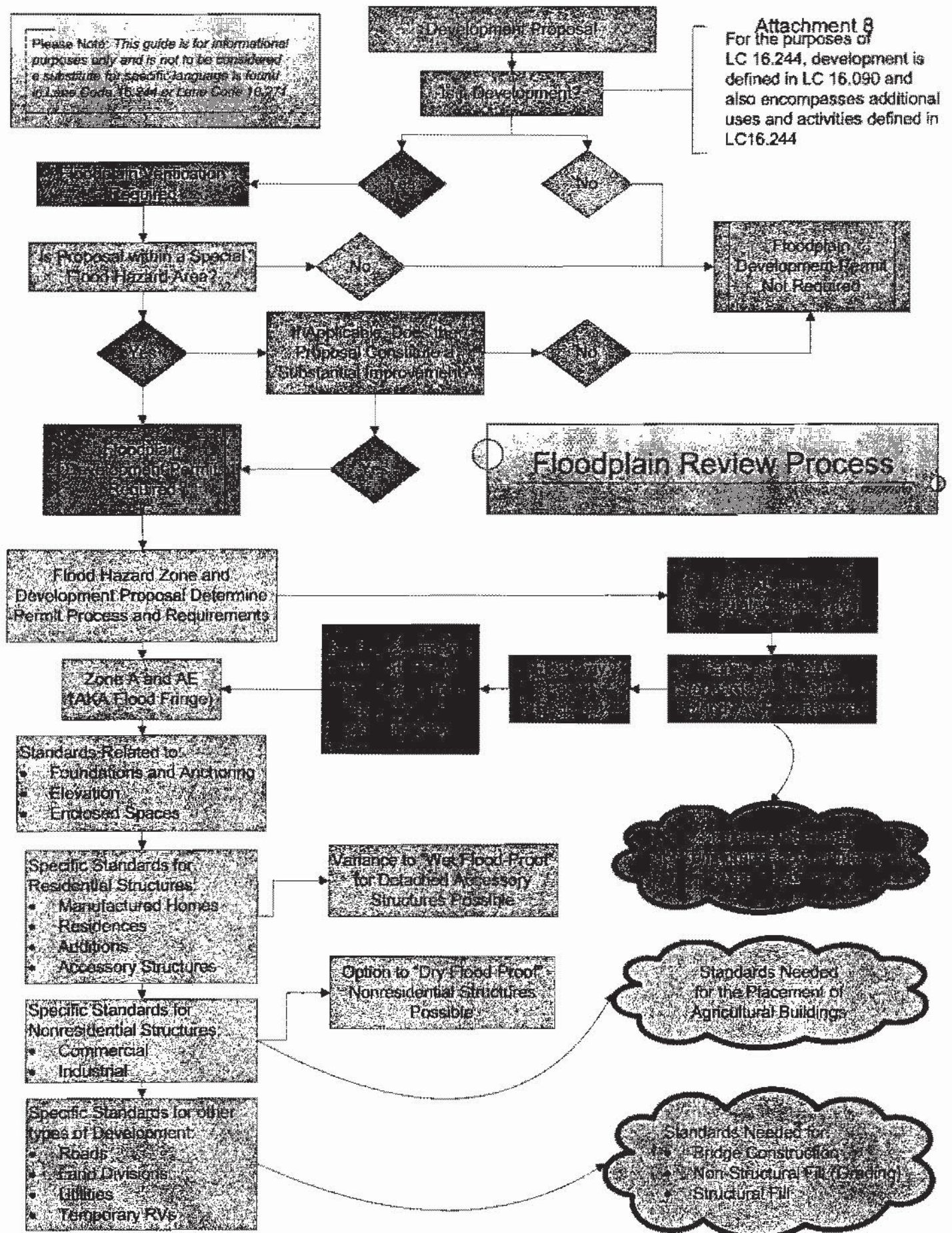
(b) Conditions. Reasonable conditions may be established in connection with a variance as deemed necessary to secure the purpose and requirements of this section. In cases where a variance is granted to allow residential construction with a lowest floor elevation below the required minimum elevation, or nonresidential flood-proofing below the required minimum elevation, the applicant shall record a deed covenant, that the cost of flood insurance will be commensurable with the increased risk resulting from the reduced floor elevation of flood-proofing. *(Revised by Ordinance No. 7-87, Effective 6.17.87; 12-87, 8.13.87; 19-87, 10.14.87; 3-91, 5.17.91; 2-98, 4.8.98; 1-07, 3.23.07)*

[REDACTED]

[REDACTED]

Please Note: This guide is for informational purposes only and is not to be considered a substitute for specific language is found in Lane Code 16.244 or Lane Code 16.271

Attachment 8
For the purposes of LC 16.244, development is defined in LC 16.090 and also encompasses additional uses and activities defined in LC 16.244



Model Ordinance: Protecting Surface Water Sources of Drinking Water

Background

Protection of Oregon's drinking water resources is critical to supply a growing population and to support the state's continued economic health. Safe drinking water is fundamental to the viability of any community, and the cost of treating contaminated water is extremely high. Source water protection beyond what is required by the federal Clean Water Act is primarily a voluntary program which relies on local governments to take steps to care for their drinking water resource. Protecting drinking water involves reducing the risk of contamination of the groundwater, rivers, streams and lakes that serve as sources of drinking water for local communities.

This document provides model ordinance language that jurisdictions can use to protect drinking water obtained from surface water sources. Developing a drinking water protection ordinance is one of many tools communities can voluntarily use to safeguard community health and reduce the risk of contamination of water supplies. Communities are encouraged to examine all potential management options (such as education, outreach, incentives, technical assistance and land acquisition) and tailor a protection strategy to meet their specific needs.

Why use an ordinance or overlay zone?

A jurisdiction might determine that an ordinance is necessary to protect public health if 1) current regulations do not protect the drinking water supply to the level the community desires, 2) other potential management options are not as effective for the potential risks being addressed, or 3) to limit higher risk activities in developed areas with a strong hydrologic connection to the drinking water source.

A local ordinance has the potential for reducing risk to drinking water from both new and existing sources of contaminants. However, the mechanisms for review, inspection and enforcement associated with new development are different from those for existing development. A local drinking water protection ordinance typically defines the management area using a map and applies an overlay zone in which high-risk activities are restricted to protect the resource. The Oregon Department of Human

Services (DHS) and DEQ have prepared Source Water Assessment reports (available at <http://www.deq.state.or.us/wq/dwp/dwp.htm>) for all public water supplies serving at least 25 individuals or 15 service connections for at least 60 days each year. These reports are a valuable reference for establishing appropriate boundaries for a drinking water protection ordinance. These assessments include maps of the drinking water watersheds and highly sensitive areas within those watersheds, plus an inventory of potential sources of contamination.

The model ordinance provides standards for various development and other activities with the intent of leveraging the natural protective functions of the watershed and moderating higher-risk human activity. Risk of drinking water contamination will be reduced by:

- Preserving the bank stability function and the filtering function provided by a healthy vegetated streamside area
- Prohibition of known high-risk land uses (such as landfills or certain industrial facilities)
- Setting standards for the use, handling and storage of toxic substances
- Requiring erosion control and stormwater management practices to prevent the flow of sediment and contaminated runoff from affecting the drinking water source.

Using the model ordinance

The model ordinance language in the following pages serves as a guide for jurisdictions to develop a drinking water protection ordinance and overlay zone. Jurisdictions may alter the language as needed. Within this ordinance language, material to be customized by local jurisdictions is included in [brackets]. Brackets also show where a decision needs to be made. When the word [jurisdiction] is in brackets, the name of the city or county or the word "city" or "county" should be inserted.

For an electronic version of the model ordinance to modify for your community, please contact Julie Harvey, Portland, at (503) 229-5664, call toll-free in Oregon at 1-800-452-4011, ext. 5664, or e-mail harvey.julie@deq.state.or.us.



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Last Updated: 1/21/10
By: Julie Harvey
DEQ 07-WQ-002

Drinking Water Protection Overlay District Model Code (For surface water sources)

Section 1.0 - General

The regulations that apply to this Drinking Water Protection (DWP) Overlay District are in addition to those of the underlying zoning districts and other [jurisdiction] regulations. Where the regulations and permitted uses of an underlying district conflict with those of an overlay district, the more restrictive standards shall apply.

Section 2.0 - Purpose

The [jurisdiction] recognizes: (a) that residents of [jurisdiction] rely on [name surface water drinking water source] for a safe drinking water supply, and (b) that certain land uses or activities in [jurisdiction] can contaminate surface water. The purpose of the Drinking Water Protection (DWP) Overlay District is to protect public health and safety by minimizing contamination risks to surface waters that supply [jurisdiction] with drinking water. This ordinance establishes standards for the use and storage of hazardous materials and other contaminant sources that pose a risk to drinking water and management of riparian areas and stormwater within the DWP Overlay District.

Section 3.0 - Definitions

DEVELOPMENT. The carrying out of any construction, reconstruction, alteration of surface or structure or change of land use or intensity of use that requires a permit.

HAZARDOUS MATERIALS. Substances defined as such in any of the following:

- (a) Hazardous waste as defined in ORS 466.005(7)
- (b) Toxic substances as defined in ORS 465.003(9)
- (c) Any substance defined as a hazardous substance pursuant to Comprehensive section 101(14) of the federal Comprehensive Environmental Response, Compensation and Liability Act, P.L. 96-510, as amended, and P.L. 99-499.
- (d) Oil as defined in ORS 465.200(19); and
- (e) Any substance designated by the Environmental Quality Commission under ORS 465.400.

INERT. Containing only constituents that are biologically and chemically inactive and that, when exposed to biodegradation and/or leaching, will not adversely impact the waters of the state or public health.

PRIMARY CONTAINMENT. A tank, pit, container, pipe or vessel of first containment of liquid or chemical.

RELEASE. Any unplanned or improper discharge, leak, or spill of a potential contaminant including a hazardous material.

SECONDARY CONTAINMENT. A second tank, catchment pit, pipe, or vessel that limits and contains liquid or chemical leaking or leaching from a primary containment area; monitoring and recovery are required.

Section 4.0 - Drinking Water Protection (DWP) Overlay District and Critical Areas

The Drinking Water Protection Overlay District is identified in the [Name document, possibly DHS and DEQ's Source Water Assessment] and shown on [Name Map]. Drinking Water Protection Critical Areas within the district are generally defined as those areas within [200] feet of [Name source water] and its tributaries, and [areas of high soil erosion potential, high permeability, and high runoff soils identified in the Source Water Assessment]

[NOTE: The boundaries of the DWP Overlay District should be adequate to ensure that pollutants of concern are removed from runoff before entering the drinking water source. This model code presents a tiered approach to the overlay with more stringent requirements within critical areas. DWP Critical area widths vary from twenty feet to up to 200 feet in ordinances throughout the United States. Since this ordinance is for streams, rivers and reservoirs that supply public drinking water, the larger width of 200 feet would be most appropriate. Local officials may consider using a watershed approach for areas within their jurisdiction to ensure that all surface water/groundwater/recharge areas for the water supply are protected.]



Section 5.0 – Applicability

- A. The procedures and requirements of the DWP Overlay District:
 - 1. Apply in addition to the standards of the property's underlying zone;
 - 2. Supersede the property's underlying zone where the underlying zone does not provide the level of resource protection afforded by the DWP Overlay Zone.
- B. In determining the location of a property within the DWP Overlay District, the following criteria shall apply:
 - 1. That portion of a tax lot that lies within a DWP Overlay District shall be governed by the restriction applicable to that Zone; and
 - 2. Tax lots with a portion of the tax lot in the DWP Critical Area shall be governed by the standards of the more restrictive DWP Critical Area. The [City/County Planning Director] may waive the requirement that the more restrictive standards apply when all of the following apply:
 - a) Storage, use, handling, treatment, production, and/or transportation of hazardous materials will not take place within the portion of the tax lot having the more restrictive DWP Overlay District standards;
 - b) Storage, use, handling, treatment, production, and/or transportation of hazardous materials will not take place within 50 feet of the portion of the tax lot having more restrictive DWP Overlay District standards; and
 - c) The tax lot is 20,000 square feet or larger.
- C. Activities Subject to Review. Activities subject to the review shall include all development and permitted use or storage of hazardous materials on properties within the DWP Overlay District that are not specifically exempted from review as outlined in Section 5(D) including:
 - 1. New development and all activities requiring development approval;
 - 2. Applications for a change of occupancy or tenancy that result in a change of use to a use that will store or use 20 or more gallons of non-exempt hazardous materials;
 - 3. Expansion of a non-conforming use, to the extent allowed by the underlying zone, is permitted only under the terms of a special exception and must conform to Section 6(B). Non-conforming uses are existing uses within the DWP Critical Area that are otherwise prohibited by Section 6(A).
- D. Exemptions. This ordinance does not exempt any material or use from requirements under the Uniform Fire Code. Except as otherwise provided by this ordinance, the following activities and/or materials are exempt from this regulation:
 - 1. Use, storage, and handling of specific hazardous materials that do not present a risk to the surface water drinking water source, as determined and listed by the [City/County Planning Director] in consultation with [public water supplier]. These materials may still need to be included on the Hazardous Material Inventory Statement as required by Fire Code. A Hazardous Material Exemption Request may be submitted to the [City/County Planning Director] for hazardous materials that can be demonstrated to pose no threat to the public surface water source. These materials may be exempt from this regulation and added to the list of materials that do not pose a threat to the drinking water source. The demonstration of no threat is the responsibility of the applicant seeking the exemption and will be subject to review by [jurisdiction]; *[Note: jurisdiction can make this determination in consultation with a technical expert such as a consultant or DHS]*
 - 2. Hazardous materials offered for sale in their original containers of five (5) gallons or less; A Hazardous Material Exemption Request for original containers of greater than 5-gallons in size may be submitted to the [City/County Planning Director]. These materials may be exempt from this regulation if an applicant can demonstrate that a larger size container does not pose a threat to the drinking water source. The demonstration of no threat is the responsibility of the applicant seeking the exemption and will be subject to review by technical experts;
 - 3. Hazardous materials in fuel tanks and fluid reservoirs attached to a private or commercial motor vehicle and used directly in the motoring operation of that vehicle;
 - 4. Hazardous materials in fuel tanks and fluid reservoirs attached to machinery, including but not limited to fuel, engine oil and coolant;
 - 5. Fuel oil used in existing heating systems;
 - 6. Emergency use, storage and handling of hazardous materials by governmental organizations or non-governmental disaster relief organizations in the public interest;



7. Hazardous materials used and stored specifically for water treatment processes of the public water system and private systems for the same purpose when approved by the [City/County Planning Director];
 8. Hazardous materials contained in properly operating sealed units (transformers, refrigeration units, etc.) that are not opened as part of routine use;
 9. Natural gas distribution lines;
 10. Any commonly used office supply, such as toner or cleaning supplies, where supplies are purchased off-site for use onsite;
 11. Hazardous materials not already listed in this section used in association with Farm Practices as defined in ORS 30.930 in an Exclusive Farm Use Zone and Confined Animal Feeding Operations (CAFOs) as defined OAR 603-074-0010;
 12. Pesticide use and storage specifically addressed by state preemption of local pesticide regulation under OAR 634.055 through 634.065;
 13. Hazardous material use in association with Forest activities conducted under the Forest Practices Act; and
 14. Aggregate quantities equal to or less than 20 gallons of non-exempt hazardous materials
- E. Agency Review. Decisions made by the [Jurisdiction] under this ordinance do not supersede the authority of the state or federal agencies which may regulate or have an interest in the activity in question. It is the responsibility of the landowner to ensure that any other necessary state or federal permits or clearances are obtained.

6.0 – General Requirements

- A. Prohibited Uses. The following uses shall be prohibited within the DWP Critical Areas:
1. Storage, use, or production of hazardous materials, except as provided in Section 5(D);
 2. Fueling facilities and automobile service stations, except as provided in Section 5(D);
 3. Disposal of hazardous materials or solid wastes, except for inert substances such as rock, dirt and concrete as allowed by [reference local provisions and DEQ rule].
 4. Treatment of hazardous material, except remediation programs authorized by a government agency to treat hazardous material present at a site prior to the adoption of this ordinance;
 5. Disposal of seepage or septic sludge;
 6. Automobile wrecking yards or activities, commercial or otherwise, that result in the accumulation of [4] or more non-operating vehicles; and
 7. Outside storage of [8] or more nonfunctioning appliances;
- [Note: Consider other uses that might impact your surface water drinking water supply and list them here. Provide clear and objective definitions or otherwise provide standards for activities that are allowable if best management practices (BMPs) are used. Refer to your Source Water Assessment for information on types and location of potential sources of contamination. Consider whether to prohibit uses from the entire DWP Overlay District or just the DWP Critical Areas based on local conditions and risk.]*
- B. Performance Standards. Commercial activities occurring wholly or partly in the DWP Overlay District that involve the storage or use of more than 20 gallons of non-exempt hazardous materials including businesses located in the DWP Critical area that have received special exemption for non-conforming use as provided for in Section 5(C) shall be allowed upon compliance with the following conditions:
1. Storage, handling, treatment, use, production or otherwise keeping on premises hazardous materials shall be in compliance with containment and safety standards set by the most recent Fire Code adopted by [jurisdiction];
 2. All hazardous materials that pose a risk to surface water shall be stored in areas with approved secondary containment in place (Uniform Fire Code Articles 2 and 8003.1.3.3);
 3. Requirements found in Uniform Fire Code Appendix II-E 3.2.6 for a monitoring program and in Article 8003.1.3.3 for monitoring methods to detect hazardous materials in the secondary containment system shall be met for all amounts of non-exempt hazardous materials that pose a risk to surface water;
 4. Requirements found in Uniform Fire Code Appendix II-E Section 3.2.7 for monthly in-house inspection and maintenance of containment and emergency equipment for all amounts of non-exempt hazardous materials that pose a risk to surface water shall be met; and
 5. A Safe Drinking Water Plan (SDWP) shall be prepared by the applicant in accordance with Section 7.0 and a copy submitted to [Name of Authority (local government authority or water

utility)). This plan must be updated annually and kept on the premises. SDWP approval in accordance with Section 7(C) shall be obtained before any change of use, construction, storage or development begins.

[Note: The jurisdiction shall verify that the above referenced appendices of the Uniform Fire Code have been adopted by the jurisdiction.]

Section 7.0 - Safe Drinking Water Plans

A. Safe Drinking Water Plan Submittal Requirements:

1. For new development and all activities requiring development approval, a Safe Drinking Water Plan shall accompany any new application involving the storage or use of non-exempt hazardous materials.
2. Existing businesses that are required to have a SDWP by Section 6(B) of this ordinance shall submit a copy of the SDWP within [12 months] of the effective date of this ordinance.
3. New or expanding businesses that are required to have a SDWP by Section 6(B) of this ordinance and will occupy existing structures or for other reasons will not require review by the planning or building department shall prepare or update their SDWP and submit it to [Name authority] prior to beginning or expanding operations. For the purpose of this ordinance, expansion is defined as a greater than [10%] increase in the use, storage or production of hazardous materials, since the previous SDWP was submitted. *[Note: Without periodic inspection or reporting requirements jurisdictions need to rely on business owners to initiate reporting for this provision. Outreach and education may be needed to inform business of their responsibility.]*

B. The Safe Drinking Water Plan shall contain the following information:

1. Hazardous Material Inventory Statement and, upon request from the [City/County Planning Director], a Material Safety Data Sheet for any hazardous materials to be used, stored or produced on site that are not exempt by Section 5(D) of this ordinance. Hazardous material weights shall be converted to volume measurement for purposes of determining amounts-10 pounds shall be considered equal to 1 gallon in conformance with Uniform Fire Code 80001.15.1,
2. A detailed description of the activities conducted at the facility that involve the storage, handling, treatment, use or production of non-exempt hazardous materials;
3. A description of the primary and secondary containment devices proposed and an explanation of whether such containment devices will drain to sanitary or storm sewer;
4. A proposed Hazardous Material Management Plan for the facility that describes procedures to be followed to prevent, control, collect and dispose of any accidental release of hazardous material including a list of available equipment;
5. Spill reporting procedures, including a list of affected agencies to be contacted in the event of a spill
6. A description of procedures for inspection and maintenance of containment devices and emergency equipment; and
7. A description of procedures for disposition of unused hazardous materials or hazardous material waste products including the type of transport and proposed route.

C. Safe Drinking Water Plan Review and Approval

The Safe Drinking Water Plan shall be reviewed under Type II procedures [reference appropriate section of jurisdictions code or see Oregon Department of Land Conservation and Development's *Model Development Code & User's Guide for Small Cities, 2nd Edition, 2005* for examples].

[Note: Type II decisions are typically made by the City/County Planning Director or someone he or she officially designates with consultation from appropriate officials such as building, fire, or public water system entity. The jurisdiction may choose to coordinate with the local water utility and direct plan submittals under Section 6(B) and SDWPs to the water utility for review.]

Section 8.0 - On-Site System Inspection and Maintenance

Reserved [For drinking water sources that are at risk for elevated nutrient or bacteria levels should consider the implementation of on inspection and maintenance requirement for owners of individual onsite septic systems should be considered to insure proper functioning of the system. DEQ is currently obtaining recommendations for an onsite system inspection and maintenance program with an external advisory committee. Model code language for this section will be added at the conclusion of the advisory process in 2010. Contact DEQ's onsite program for assistance in the interim].



Section 9.0 - New Development in DWP Critical Areas

- A. Onsite septic systems and drain fields shall not be located within the DWP Critical Area. *[Consider including this provision for drinking water sources that are at risk for elevated nutrient or bacteria levels. Be aware that the DEQ agents in the onsite program generally evaluate and approve the proposed location of onsite septic systems in accordance with a statewide rulebook well before the permit application to actually construct the system would be received by your jurisdiction. The statewide rulebook and DEQ rules (OAR Chapter 340, Division 071) typically require a minimum separation distance of 50 to 100 feet between septic system components and surface waters. If the DWP Critical Area is more restrictive than this setback, on-going coordination with DEQ and/or the DEQ agent for the local onsite program will be required to ensure that the more restrictive siting requirements are met. In addition, restricting onsite septic system construction may render lots within your jurisdiction unbuildable, well-defined criteria for exceptions from this requirement due to hardship (see Section C below) are highly recommended.]*
- B. New development and redevelopment in DWP Critical Areas shall exclude all vegetation removal and the placement of structures and impervious surfaces within the DWP Critical Area except for the following uses, provided alteration and disturbance is kept to a minimum and native vegetation is used to replant disturbed areas after construction:
 1. Development that is appurtenant to the production, supply, distribution or storage of water by a public water supplier;
 2. Public roads, main-line utilities and trails;
 3. Private roads and driveways necessary to access buildable portions of a parcel;
 4. Stormwater management structures sited within the context of a [city/county] approved stormwater management program;
 5. Construction, clearing or other activities on [city/county] owned property if the encroachment is authorized in writing by [jurisdiction];
 6. Construction, clearing, or other activities on [public water utility] owned land if the encroachment is authorized in writing by the [Public Water Utility board]. [Note: use if water district or other non-municipal entity operates the water supply]; and
 7. Trash containers and dumpsters that are under a roof or are located so that leachate from the receptacle cannot escape unfiltered and untreated.
- C. For any existing lot or parcel demonstrated to have been rendered not buildable by application of these requirements, the property owner may apply for a hardship variance to waive land development restrictions and prohibitions found in subsections A and B. A decision regarding hardship variances will follow the procedures and standards outlined in Section 12 of this ordinance. *[Note: A jurisdiction may want to consider addressing hardship situations through exception criteria rather than a variance, especially in jurisdictions where the cost for processing a variance is high. Exception criteria would need to be clear and objective, such as defining a minimum building envelope or exception by date the lot was created.]*

Section 10.0 - Construction and Post Construction Stormwater Review Requirements for New and Redevelopment in the DWP Overlay District

Reserved. [It is recommended that local jurisdictions adopt erosion and sediment control requirements and post construction stormwater management requirements to protect stormwater infrastructure, water quality and aquatic habitat. Such requirements will also serve to protect drinking water. Model code for these requirements can be found in the Water Quality Model Code and Guidebook (available at <http://www.oregon.gov/LCD/waterqualitygb.shtml>). If a jurisdiction wants to link stormwater management directly with drinking water protection, Section 10 provides place holder for this option. Treatment standards for stormwater that serve to protect drinking water should address toxics such as synthetic organic compounds (i.e. pesticides, solvents and household and industrial chemicals); petroleum hydrocarbons (i.e. oil and grease, "BTEX" compounds: benzene, toluene, ethyl benzene, and xylene; and polynuclear aromatic hydrocarbons (PAHs)); and metals.]

Section 11.0 - Conditions of Approval

The [City/County Planning Director] may attach conditions of approval that will minimize negative impacts of regulated activities on drinking water and ensure that the facility or the proposed development can fully meet the standards specified in Section 10. These conditions may include stormwater monitoring,



special stormwater treatment facilities, signage, or other conditions to address risks associated with the proposed development.

Section 12.0 – Appeals

The only portions of this ordinance that are subject to appeal are Section 7(C) Approval of Safe Drinking Water Plan, Section 5(D)(1) Hazardous Materials Exemptions Request, Section 11 Conditions of Approval, and *[consider adding other sections if modified from model code.]* The appeal of a decision of the [City/County Planning Director] may be appealed to the [Planning Commission] under [Type III or amend procedure type as appropriate] as specified in [reference appropriate section of code].

Section 13.0 - City/County Liability

Warning and Disclaimer of Liability. The degree of drinking water protection in the DWP Overlay District required by this Article is based on scientific and engineering considerations that inherently carry associated uncertainties. Any conclusions based on the exact boundaries of the DWP Overlay Zone and DWP Critical Areas shall, therefore, be considered estimates. Under no conditions should this Article be construed to guarantee the purity of the surface water or guarantee the prevention of contamination. Therefore, this Article shall not create liability on the part of the [jurisdiction], or any [jurisdiction] personnel, for any contamination that may result from reliance on this Article or any administrative decision made under this Article.

Section 14.0 - Enforcement

[Reference to appropriate section of the Development Code.]

Section 15.0 - Saving Clause

Should any section or provision of this ordinance be declared invalid, such decision shall not affect the validity of the ordinance as a whole or any other part thereof.

For more information

Contact Julie Harvey, DEQ Drinking Water Protection Program, Portland, (503) 229-5664, toll-free in Oregon at 1-800-452-4011, ext.5664, or e-mail harvey.julie@deq.state.or.us

To obtain a local or regional map or copy of an individual source water assessment report, or to arrange a presentation on drinking water protection, contact **Julie Harvey**, Drinking Water Protection Specialist, DEQ, Portland, (503) 229-5664. For information on land use planning for drinking water protection, contact **Amanda Punton**, Oregon Department of Land Conservation and Development, (971) 673-0961.

Oregon DHS – Drinking Water Program

<http://oregon.gov/DHS/ph/dwp/index.shtml>

Oregon DEQ

<http://www.deq.state.or.us/wq/dwp/dwp.htm>

Oregon Department of Land Conservation and Development

Water Quality Model Code and Guidebook

<http://www.oregon.gov/LCD/waterqualitygb.shtml>

U.S. Environmental Protection Agency

EPA's Office of Ground Water and Drinking Water <http://www.epa.gov/safewater/>

Alternative formats

Alternative formats (Braille, large type) of this document can be made available. Contact DEQ's Office of Communications and Outreach, Portland, at (503) 229-5696, or call toll-free in Oregon at 1-800-452-4011, ext. 5696.

MINUTES

Lane County Planning Commission
Board of Commissioners Conference Room—125 East 8th Avenue
Eugene, Oregon

July 6, 2010
5:30 p.m.

PRESENT: Robert Noble, Chair; Tony McCown, Vice Chair; George Goldstein, Nancy Nichols, Dennis Sandow, John Sullivan, Lane County Planning Commissioners; Kent Howe, Matt Laird, Kier Miller, Deanna Wright, Lane County Land Management Division; Celia Barry, Lane County Transportation Planning and Traffic; Petra Schuetz, LCOG; Chris Watchie, project consultant; Karl Morgenstern, Joe Moll, Bob Parker, Jason Heuser, Larry Six, Mike Van, guests.

ABSENT: Steve Dignam, Lisa Arkin, Jozef Siekiel-Zdzienicki Commissioners.

Mr. Noble convened the Lane County Planning Commission (LCPC) at 5:30 p.m.

WORK SESSION

1. Approval of Minutes

June 30, 2009—

Mr. Noble offered the following correction: Page 5, paragraph 9, sentence 1 should read: Mr. ~~Nobel~~ **Noble** asked what the implications would be if the commissions made a recommendation that the amendments move forward with the stipulation that the historic flow levels be maintained.

Mr. Sullivan, seconded by Ms. Nichols, moved that the June 30, 2009 minutes be approved as corrected. The motion passed 5:0:1, with Commissioners Noble, McCown, Goldstein, Nichols, and Sullivan voting in favor of the motion, and Commissioner Sandow abstaining.

February 16, 2010—Mr. McCown, seconded by Mr. Sullivan, moved that the February 16, 2010 minutes be approved as submitted. The motion passed 5:0:1, with Commissioners Noble, McCown, Goldstein, Nichols, and Sullivan voting in favor of the motion, and Commissioner Sandow abstaining.

February 17, 2010—Mr. McCown, seconded by Mr. Sullivan, moved that the February 17, 2010 minutes be approved as submitted. The motion passed 5:0:1, with Commissioners Noble, McCown, Goldstein, Nichols, and Sullivan voting in favor of the motion, and Commissioner Sandow abstaining.

March 2, 2010— Mr. Sullivan, seconded by Mr. McCown, moved that the March 2, 2010 minutes be approved as submitted. The motion unanimously 6:0.

March 16, 2010—Mr. Sullivan, seconded by Mr. McCown, moved that the March 16, 2010 minutes be approved as submitted. The motion unanimously 6:0.

April 6, 2010—Mr. McCown, seconded by Mr. Sullivan, moved that the April 6, 2010 minutes be approved as submitted. The motion unanimously 6:0.

April 20, 2010—Mr. Sullivan, seconded by Mr. McCown, moved that the April 20, 2010 minutes be approved as submitted. The motion passed 5:0:1, with Commissioners Noble, McCown, Goldstein, Nichols, and Sullivan voting in favor of the motion, and Commissioner Sandow abstaining.

April 21, 2010—Mr. Sullivan, seconded by Mr. McCown, moved that the March 16, 2010 minutes be approved as submitted. The motion unanimously 6:0.

May 4, 2010—Mr. McCown, seconded by Mr. Sullivan, moved that the May 4, 2010 minutes be approved as submitted. The motion unanimously 6:0.

May 18, 2010—Mr. McCown, seconded by Mr. Sullivan, moved that the May 18, 2010 minutes be approved as submitted. The motion unanimously 6:0.

June 1, 2010—Mr. McCown, seconded by Mr. Sullivan, moved that the June 1, 2010 minutes be approved as submitted. The motion unanimously 6:0.

2. Planning Commission Schedule

Mr. Laird requested time on the agenda to review the Planning Commission's schedule through the end of the calendar year. He distributed and reviewed two documents entitled *Joint Hearing Schedule: Land Use Task Force Items* and *Lane County Planning Commission Future Meeting Schedule*. He said Land Management staff had been tasked with completing the Land Use Task Force work and the Proposed Amendments to the Floodplain Combining Zone and Development of a Drinking Water Protection Overlay Zone by the Board of County Commissioners in 2010. This would take a significant time commitment by both the BCC and the Planning Commission with joint meetings of the two bodies and additional meetings.

3. Background Information and Discussion—Regarding Proposed Amendments to the Floodplain Combining Zone and Development of a Drinking Water Protection Overlay Zone

Mr. Muller offered the staff report and PowerPoint presentation entitled *Proposed Amendments to the Lane County Floodplain Ordinance and Development of Drinking Water Protection Zone*. He noted members of the project Technical Advisory Committee (TAC) were present at tonight's Planning Commission meeting. Both of the series of amendments were being developed to address concerns raised about excessive development in the floodplain and riparian area and the implications of development on water quality as well as health and human safety.

Mr. Morgenstern, technical advisory committee (TAC) member, provided a PowerPoint presentation entitled *Impacts of Development on Floodplains in Water Quality, Health & Human Safety*. He provided a brief history of the project.

Mr. Sandow asked if the TAC had considered more intense downpours as suggested by some climate modeling. He also asked if the TAC had determined whether there was public health data that aligned with some of the TAC's studies.

Mr. Morgenstern responded the TAC was attempting to develop an accurate snowpack/snow melt component in the model at the present time, but downpours could be considered in another stage of the study. He added the TAC had looked at public health data but not much was available in Oregon.

Mr. Goldstein asked if hydrologic restrictions on the waterways would be studied.

Mr. Miller said mitigation of hydrologic restrictions had been the national approach for flooding issues where obstructions were mitigated with channelization or levies to move flood waters out. The current trend was away from that practice and towards keeping floodplains in a more natural condition with mitigation through design and construction of structures to prevent flooding.

Mr. Noble asked if there had been a degradation of water quality at intake points.

Mr. Morgenstern said the Eugene Water and Electric Board (EWEB) had focused more efforts on looking at contaminants not previously studied, so there was no comparative data. However, EWEB was not finding a significant amount of chemicals, and data from recent efforts to examine pharmaceuticals and hormones was not yet available.

Mr. Miller continued with the PowerPoint presentation and reviewed the public involvement process for the project. Lane County and EWEB had worked collaboratively and EWEB contributed funds to hire a consultant to conduct a broad issue identification process and stakeholder issue identification summary. The stakeholder group was scaled back to a TAC at the direction of the BCC with staff from the State Department of Environmental Quality (DEQ), EWEB, Springfield Utility Board (SUB), McKenzie Watershed Council, Middlefork Willamette Watershed Council, and McKenzie River Trust. Staff was developing proposed code changes in conjunction with the TAC. Flooding was the most common natural disaster in the country and in Lane County. The approach of the federal government in the past had been to provide post disaster recovery assistance in communities. The current practice involved the federal government backing low cost flood insurance for communities that adopted floodplain regulations that met or exceeded minimum standards. The program was established in 1968 and Lane County became an official participant in 1985 when a series of flood insurance studies and rate maps were adopted. Lane County's participation was monitored by the Federal Emergency Management Agency (FEMA). Although participation in the federal program was voluntary, there were ramifications if the county was not involved. Additionally, under Goal 7 of the Oregon statewide planning program, jurisdictions were required to do something to mitigate flood risks. A challenge faced by County staff was incremental improvements over time which allowed building sizes to increase while not adhering to Lane Code. Although there were tsunami inundation zones and flooding occurred on the coast, there were not coastal flood areas in the Oregon. County staff were researching a stormwater management plan in the future, and the proposed ordinance changes were attempting to address one facet of the problem. Lane County's primary compliance tool was a floodplain development permit that established the requirements for building in the floodplain. Permits were required for new construction as well as placement of mobile homes; or, when fill work, dredging or significant alteration of the channel.

Mr. Miller reviewed the flood zones and benefits of the Community Rating System (CRS) as described in the June 21, 2010 staff memorandum for the work session. The TAC had considered a number of sources to improve the existing regulations to meet FEMA requirements to qualify for insurance reductions and to address boarder issues. Publications from FEMA, State of Oregon Department of Land Conservation (DLCD); studies from the University of Oregon; and surveying current and former Land Management staff members had been used to improve those regulations.

Mr. Miller explained staff would be returning to the Planning Commission to review proposed language for correcting errors and omissions, adding provisions for the AO Zone, and updating definitions. The commission would also look at additional incremental development through changes in terminology; fill standards; development in the floodway; septic tank problems; and prohibiting critical and hazardous facilities within the floodplain. He added staff was attempting to craft code language that would not trigger Ballot Measure 49 claims, noting that over the years, the courts had consistently upheld floodplain regulations, even those that exceeded the minimum FEMA standards.

In response to a question from Ms. Nichols, Mr. Miller said the County could not restrict farm use under current State law.

Responding to questions from Mr. Noble, Mr. Miller said the flood insurance discount applied to individual homeowners. Countywide the annual savings was estimated at approximately \$250,000.

Mr. Noble suggested staff should consider ways to incentivize people to refrain from building in higher risk areas.

In response to Mr. Goldstein, Mr. Morgenstern said EWEB had been studying pesticides, pharmaceuticals, and organics for eight years and anticipated a series of reports would be released during the next couple of years that would address those issues.

Mr. Sullivan commended staff for the excellent presentation.

Mr. Sandow expressed concern over the methodology used in the study, the lack of public health data, and lack of a climatologist, a biologist, a geologist and agricultural representation on the TAC. He wished to see an ongoing structure that would continue at the conclusion of this project. He added the staff work was excellent and suggested it should be shared with the cities that were engaged in urban growth boundary (UGB) work.

The commission took a break from 7:30 p.m. to 7:45 p.m.

4. Training—Role of the Planning Commission, By-Laws, Quasi-judicial—vs—Legislative Hearings

Deferred to a future meeting.

5. Report—Regional Transportation Options Plan. Long-Range Planning for Alternative Transportation Modes and Options for the Area Within the Metropolitan Planning Organization (MPO); Cities of Eugene, Springfield, Coburg and Lane County.

Applicant: Point to Point Solutions

Ms. Barry introduced Petra Schuetz from Lane Council of Governments (LCOG) and Chris Watchue, point2point Solutions, project consultant.

Ms. Schuetz explained the region's transportation planning partners had embarked on an unprecedented long-range coordination which included creating or updating the following plans by the end of 2012:

- Cohurg Transportation System Plan.
- Eugene Transportation System Plan.
- Springfield Transportation System Plan.
- Lane Transit District Long Range Transit Plan.
- Regional Transportation System Plan.
- Regional Transportation Plan.

Ms. Schuetz asserted transportation demand management (TDM) had a growing role in creating a more efficient and balanced transportation system. TDM was the application of strategies and policies to reduce travel demand or to redistribute that demand in space or time. Examples of demand management included rideshare, biking and walking, telework, and marketing/education of travel choices. TDM was commonly called Transportation Options (TO) in Oregon. The Central Lane MPO was responsible for the region's TO programs through point2point Solutions. The partners had acquired partial funding to develop a Regional Transportation Options Plan (RTOP).

Ms. Watchue explained the regional program, called Point to Point was housed at LTD, while the City of Eugene was working on its own program. She reviewed the history of Point to Point.

Ms. Barry said TransPlan had served as the State land use plan and the federal regional transportation plan. The City of Cohurg became a part of the local land use planning process and House Bill (H.B.) 3337 was enacted at the State level, which required that the cities divide their UGBs. The cities would now have separate transportation system plans (TSPs) and other planning documents. The cities were undertaking a comprehensive land update including updates of the buildable lands inventories, review of the UGBs, which would be followed by the TSP updates and integrated with the land use planning. The Planning Commission would be asked to co-adopt many of the documents in the future.

Mr. Sullivan and Mr. Goldstein encouraged staff to ensure that the TAC had a broad representation so that the special interests did not hijack the project. Mr. Sullivan opined people drove cars for two reasons, convenience and independence, and the only way to reduce the use would be to penalize or tax it. Encouraging carpooling and bicycle riding did not address the issues of convenience and independence.

Ms. Schuetz averred the public involvement portion of the process intended to invite people from different interest areas. She did not think there was a particular special interest group represented on the TAC.

Mr. Noble asked if there was a Goal 12 requirement that set a legal requirement for vehicle miles traveled (VMT) reduction.

Ms. Barry explained the VMT requirements applied to MPO areas, and an alternative standard could be used if it was more desirable. The State land use requirement required that the VMTs be incorporated into the cities' TSPs. The RTSP requirement would need to be addressed.

Mr. Noble understood the Chamber of Commerce had an interest in centralizing distribution of goods and services. Businesses around the airport were interested in centralizing distribution, which if successfully done, would more effectively funnel much of the industrial traffic. He opined that although some people had expressed concerns about the traffic on I-5, the traffic was free flowing, and the greatest congestion came from idling. He added the communities of Junction City, the City of Veneta and the City of Florence were stakeholders due to the need to move goods and services to those communities.

Ms. Nichols left at 8:30 p.m.

Mr. Sandow asked to look at the quantitative data for the carbon calculation in the future and was opposed to use of cost benefit analysis. He suggested using electronic polling for collecting data from the public. He asked for walkability scores for neighborhoods and how the LAP2 spectrum would benefit this project.

Ms. Barry said a green house gas of the Lane County Central MPO was currently underway.

Ms. Schuetz added Lane County was currently under the federal carbon levels and staff believed the area would continue to be under the new federal threshold regulations.

Mr. Noble iterated the way to get people to do things they would not ordinarily do was to provide incentives.

The meeting adjourned at 8:40 p.m.

(Recorded by Linda Henry)



Memorandum Date: July 8, 2010
LCPC Meeting Date: July 20, 2010

TO: LANE COUNTY PLANNING COMMISSION

CC: LANE COUNTY BOARD OF COMMISSIONERS

FROM: Public Works Department/Land Management Division

PRESENTED BY: Keir Miller, Associate Planner

AGENDA ITEM TITLE: **WORK SESSION / CONTINUED DISCUSSION - PROPOSED AMENDMENTS TO THE FLOODPLAIN COMBINING ZONE (LC 10.271, LC 16.244)**

1. MOTION

No motion is being proposed at this time. This is a work session discussion item only.

2. AGENDA ITEM SUMMARY

The Planning Commission is being asked to review proposed changes to Lane County's floodplain ordinance.

3. DISCUSSION

On July 5, 2010, the Land Management Division provided a general overview of proposed changes to Lane County's floodplain ordinance. Additional background information regarding the need for the proposed changes was presented by Karl Morgenstern, Source Water Protection Coordinator for the Eugene Water and Electric Board, and member of the Board of Commissioners' appointed technical advisory committee (TAC) for this project.

At the July 5th meeting, staff informed the Planning Commission that specific code changes would be provided for discussion and review at the July 20th LCPC work session. The proposed amendments are listed below. The specific code amendment language is included in legislative format as Attachment "A" to this memo and in final format as Attachment "B".

Proposed Changes

1	Remove definitions to: "Existing Manufactured Home Park or Subdivision", "Expansion to an Existing Manufactured Home Park or Subdivision" (required)
2	Update standards regarding manufactured home parks in the FP (required)
3	Include missing standards regarding "AO" flood zones added (required)
4	Eliminated references to AH and numbered A zones (required)
5	Require temporary encroachments in floodway to meet standards specified in FEMA guidance document (required)
6	Codify existing requirements related to agricultural buildings in the floodplain (required)
7	Update substantial improvement definition to limit/discourage incremental

	development in the FP (A.K.A. cumulative improvement clause)
8	Revise duties and responsibilities of Floodplain Administer based on model language
9	Require critical facilities to be sited outside the FP
10	Prohibited development within the floodway for most uses unless this standard would deny any reasonable use of the property – then minimize development
12	Prohibit land divisions and property line adjustments in the floodway unless a development site is identified outside of the floodway on the newly proposed / reconfigured parcel(s)
13	Prohibit new fencing in the Floodway unless it is built to breakaway or pass through standards
15	Require secondary containment for hazardous materials stored within the SFHA
16	Include additional freeboard requirements
17	Require septic systems to be setback from the FP where feasible
18	Update soil pressure foundation requirement from 1000 psf to 1500 psf
19	Require the location of the floodplain to be shown on all recorded final plat documents for land divisions.
20	Add standards for the “wet flood-proofing” of accessory structures
21	Add standards for the placement and use of fill in the FP
22	Add standards for the alteration of a watercourse (including provisions for bridges and culverts)
23	Modify variance standard to eliminate option for a variance in the floodway for residential purposes.
24	Add/modify definitions for: Area of Special Flood Hazard, Bankfull Stage, Breakaway Wall, Development, Critical Facility, Datum, Digital FIRM, Encroachment, Flood Hazard Determination, Floodway, Flood Protection Elevation, Freeboard, Hazardous Materials, Highest Adjacent Grade, Letter of Map Change, Lowest Floor, Manufactured Dwelling, Market Value, Mean Sea Level, Natural Elevation, New Construction, Secondary Containment, Start of Construction, Substantial Damage

In addition to these proposed changes, the TAC also recommended that structural setbacks be required from all flood sources and/or that all development be prohibited from the SFHA if an alternative location is available a lot or parcel. At this time, staff is working with Legal Counsel to determine if such proposed amendments could expose the County to any liability under a Ballot Measure 49 / regulatory takings claim. Pending the analysis by Legal Counsel, these changes may be forwarded to the LCPC, but at this time they are not included in the amended code language.

4. **ANALYSIS**

The proposed amendments fall within two general categories:

1. Changes that are required to correct a deficiency with the existing code language or, which are needed to address a change in state or federal requirements (these are the items 1-6, identified in the list of proposed amendments) and;
2. Changes which are not required but which would implement an identified floodplain management best practice or higher regulatory standard.

If Lane County wishes to remain a participating member of the National Flood Insurance Program, then items 1-6 must be addressed and there are no policy options to be weighed or considered regarding these changes.

Of the remaining 18 or so remaining non-mandatory amendments only a smaller subset are likely to be highly controversial. These include items # 7, 10, 12 and 17.

A synopsis for each of these items is provided below:

Item #7:

Buildings built before adoption of the floodplain regulations are often subject to repeated flooding, repeated damage, and repeated flood insurance claims and federal disaster assistance payments. The NFIP regulations address a portion of this problem by requiring that substantially damaged and substantially improved buildings be brought up to the same standards as new buildings. However, only a small percentage of the existing buildings are substantially damaged or substantially improved and subject to these requirements.

Item #7 would help address this issue by counting improvement and repair projects cumulatively so that buildings will be brought into compliance with flood protection standards sooner. Additionally, the proposed definitions of substantial improvement and substantial damage would lower the threshold for what are considered "substantial" from 50 % currently, down to 25%. The FEMA Community Rating System (CRS) provides credit for communities that make these changes.

Item #10

This code change would reduce the amount of development that could potentially occur within the floodway, which is generally the most hazardous portion of the floodplain. The proposed amendments would not limit all development and certain exceptions for public projects, utilities, etc., are provided. In addition, there are development options included in the proposed language that would enable uses allowed under the underlying base zone, if the proposed changes would deny any reasonable use of the property. However, the size and location of proposed structures would be strictly regulated. FEMA encourages communities to further regulate development in the floodway and this change would be creditable under the CRS.

Item #12

The current floodplain regulations contain language that attempts to reduce the number of new developable parcels that can be created in the floodway by prohibiting land divisions if the entire resulting lots or parcels would be entirely within the floodway. This requirement can be circumvented by individuals who divide land in a manner that leaves a small fraction of the remaining lots outside of the floodway. This proposed change would close this loophole and require that any lots created have a demonstrable building envelop entirely outside of the floodway.

Item #17

Item 17 would require that new and replacement septic systems are setback a minimum of 25 feet from the floodplain whenever there is sufficient area on a lot to do so. For lots that are entirely within the floodplain or, which contain soils outside of the floodplain that are inadequate for standard systems, then septic may be placed inside the floodplain. However these systems must be located as far away and at an elevation as high above the flood source as is practical. Credit under the CRS is available for this change.

5. FOLLOW UP/NEXT STEPS

Two additional works session for this project have been scheduled for August 3 and 17. The focus of these work sessions will shift and the majority of meeting time will be spent reviewing newly proposed drinking water protection overlay zone language. However, if there are follow up questions regarding proposed changes to the floodplain ordinance staff will make an effort to provide that information during future scheduled work sessions.

6. ATTACHMENTS

- A. Proposed Amendments to Lane Code 16.244. (legislative format)
- B. Proposed Amendments to Lane Code 16.244. (final format)

Attachment "A" Draft Proposed Changes to Lane Code 16.244

Insertions are shown underlined

Deletions are shown with a ~~strike through~~

CHAPTER 16 CONTENTS

SHORELANDS MIXED DEVELOPMENT COMBINING ZONE (/MD-RCP)

16.241 Shorelands Mixed Development Combining Zone (/MD-RCP).

DREDGE MATERIAL/MITIGATION SITE COMBINING ZONE (/DMS-RCP)

16.242 Dredge Material Mitigation Site Combining Zone (/DMS-RCP).

BEACHES AND DUNES COMBINING ZONE (/BD-RCP)

16.243 Beaches and Dunes Combining Zone (/BD-RCP).

FLOODPLAIN COMBINING ZONE (/FP-RCP)

16.244 Floodplain Combining Zone (/FP-RCP).

COMMERCIAL AIRPORT SAFETY COMBINING ZONE (/CAS-RCP)

16.245 Commercial Airport Safety Combining Zone (/CAS-RCP).

AIRPORT SAFETY COMBINING ZONE (/AS-RCP)

16.246 Airport Safety Combining Zone (/AS-RCP).

AIRPORT OPERATIONS ZONE (AO-RCP)

16.247 Airport Operations Zone (AO-RCP).

RESOURCE CAPABILITY DETERMINATION

16.248 Resource Capability ~~Determination~~.

ESTUARINE IMPACT ASSESSMENT

16.249 Estuarine Impact Assessment.

Attachment "A" Proposed Changes to Lane Code 16.244

Insertions are shown underlinedDeletions are shown with a ~~strike-through~~

**FLOODPLAIN COMBINING ZONE (/FP-RCP)
RURAL COMPREHENSIVE PLAN**

16.244 Floodplain Combining Zone (/FP-RCP).

(1) Purpose. ~~The~~ it is the objectives of this ordinance are to: ~~purpose of this section to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas. The provisions of this section are designed to:~~

- (a) Protect human life and health and property.
- (b) Minimize expenditure of public money and costly flood control projects.
- (c) Minimize the need for rescue and relief efforts associated with flooding, which are typically and generally undertaken at the expense of the general public.
- (d) Minimize unnecessary and prolonged disruption of commerce and public services/business interruptions during times of flood.
- (e) Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, and streets and bridges located in areas of special flood hazards.
- (f) Help maintain a stable tax base by providing for the sound use and development of areas as special flood hazard areas so as to minimize future flood-blight areas.
- (g) Ensure that potential buyers are notified that property is in an area of special flood hazard.
- (h) Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.
- (i) Minimize the potential for contamination to surface and ground waters from pollutants exposed or released during flood events.
- (j) Manage the alteration of flood hazard areas to minimize the immediate and cumulative impacts of development on the natural and beneficial functions of the floodplain.

(2) Definitions. Unless specifically defined in LC 16.244(2) below, words or phrases used in this ordinance shall have the meanings provided in Lane Code 16.090. Words or phrases not defined in LC 16.244(2) or LC 16.090 shall be interpreted so as to give them the meaning they have in the most common usage and to give this ordinance the most reasonable application.

Area of Special Flood Hazard. The land in the floodplain within a community subject to a one percent chance of flooding in any given year. Flood zone designations on FIRMs in Lane County for these areas include the letters A, AE and AO, also referred to as the Special Flood Hazard Area (SFHA).

Bankfull Stage. The flow stage of a river in which the stream completely fills its channel and the elevation of the water surface coincides with the bank margins

Base Flood. A flood that has a one percent chance or greater of being equaled or exceeded in any given year.

Base Flood Elevation (BFE). The water surface elevation during the base flood in relation to a specific datum. The BFE is depicted on the FIRM to the nearest foot and on the FIS to the nearest 0.1 foot.

Attachment "A" Proposed Changes to Lane Code 16.244

Insertions are shown underlinedDeletions are shown with a ~~strike-through~~

Basement. Any area of a building having its floor subgrade (below ground level) on all sides

Breakaway Wall. A wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces, without causing damage to the elevated portion of the building supporting foundation system

Development. For the purposes of LC 16.244, development means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials located within the area of special flood hazard. Development does not include:

- A. Signs, markers, aids, etc. placed by a public agency to serve the public
- B. Driveways, parking lots, or other open space use areas where no alteration of topography occurs;
- C. Minor repairs or improvements to existing structures provided that the alterations do no increase the size or intensity of use, and do not constitute repair of substantial damage, or substantial improvement as defined in this ordinance;
- D. Customary dredging associated with routine channel maintenance consistent with State or Federal laws and permits;
- E. Posts or beams with thickness and width dimensions no larger than 4 inches by 4 inches, which are placed outside of the regulated floodway and spaced a minimum of 6 feet apart and which do not provide structural support to a habitable structure.

Critical Facility. A facility that is critical for the health and welfare of the population and is especially important following a hazard event. Critical facilities include but are not limited to:

- A. Hospitals, nursing homes, and housing likely to contain occupants who may not be sufficiently mobile to avoid death or injury during a flood;
- B. Police stations, fire stations, vehicle and equipment storage facilities, and emergency operations centers that are needed for flood response activities before, during, and after a flood; and
- C. Public and private utility facilities that are vital to maintaining or restoring normal services to flooded areas before, during, and after a flood."

In addition, critical facilities also include those facilities that if damaged or inundated during a flood event have the potential to create further detrimental risks to the health of the population and the environment. These include all landfills, dumps, waste treatment facilities and also any industrial facilities that produce, use or store hazardous materials.

Datum. The vertical datum is a base measurement point (or set of points) from which all elevations are determined. Historically, that common set of points has been the National Geodetic Vertical Datum of 1929 (NAVD29).

Digital FIRM (DFIRM). Digital Flood Insurance Rate Maps depict flood risk, zones and flood information in a format suitable for electronic mapping applications. In Lane County, the hardcopy FIRM remain the final authoritative and

Attachment "A" Proposed Changes to Lane Code 16.244

Insertions are shown underlined

Deletions are shown with a strike-through

regulatory floodplain management map documents and DFIRM data is used for reference purposes.

Encroachment. An encroachment is the advancement or infringement of uses, fill, excavation, buildings, permanent structures or other development into a floodway which may impede or alter the flow capacity of a floodplain.

~~Existing Manufactured Home Park or Subdivision. Existing manufactured home park or subdivision means a manufactured home park for which the construction of facilities for servicing the lot on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, either final site grading or the pouring of concrete pads and the construction of streets) are completed before December 18, 1985 the effective date of Lane County's conversion to the Regular Flood Insurance Program.~~

~~Expansion to an Existing Manufactured Home Park or Subdivision. Expansion to an existing manufactured home park or subdivision means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, either final site grading or pouring of concrete pads, or the construction of streets).~~

Flood or Flooding. A general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland or tidal waters and/or the unusual and rapid accumulations and runoff of surface waters from any source.

Flood Elevation Determination. A determination by the Floodplain Administrator of the water surface elevations of the base flood from the approved flood hazard studies.

~~Flood Hazard Boundary Map (FHBM). An official map of the County furnished by the Federal Insurance Administration, labeled a Flood Hazard Boundary Map (FHBM) and delineating the boundaries of flood hazard areas.~~

Flood Insurance Rate Map (FIRM). The official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

Flood Insurance Study. The official report provided by the Federal Insurance Administration that includes flood profiles and the water surface elevation of the base flood.

Floodplain. A physical geographic term describing any land area susceptible to being inundated by water from any source.

Floodplain Management. The operation of an overall program of corrective and preventative measures for reducing flood damage, including, but not limited to, emergency preparedness plans, flood control works and floodplain management regulations.

Floodplain Management Regulations. This Floodplain ordinance, together with building code requirements, health regulations and any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

Flood Proofing. Any combination of structural and nonstructural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

Flood Protection Elevation. The elevation(s) to which structures, utilities substantial improvements and other development must be constructed to minimize the potential for inundation during a 100-year flood event. This elevation is

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two feet above the base flood elevation in AE zones and four feet above highest adjacent grade in A and AO zones. For critical facilities the flood protection elevation is set at one foot above the 500-year flood elevation. These 500-year flood inundation areas are depicted as "shaded X zones" on the FIRM.

Flood Source. The river, stream, lake, reservoir or other water body where floodwaters are likely to originate or spread out from and impact adjacent land.

Floodway, (Regulatory Floodway). The floodway is the channel of a river or other watercourse and those portions of the floodplain adjoining the channel required to discharge and store floodwater or flood flows associated within the regulatory flood. These areas must be reserved in order to enable the discharge of base flood waters without cumulatively increasing the water surface elevation more than one foot.

Freeboard. A factor of safety usually expressed in feet above a flood level for the purposes of floodplain management.

Hazardous Materials. For the purposes of Lane Code 16.244, "hazardous materials" has the same meaning given that term under the Federal Resource Conservation and Recovery Act.

Highest Adjacent Grade (HAG). The highest natural elevation of the ground surface prior to construction, adjacent to the proposed walls of a structure.

Letter of Map Change (LOMC). is an official FEMA determination, by letter, to amend or revise effective Flood Insurance Rate Maps and Flood Insurance Studies. LOMCs are issued in the following categories:

- A. **Letter of Map Amendment (LOMA):** A revision based on technical data showing that a property was incorrectly included in a designated special flood hazard area. A LOMA amends the current effective Flood Insurance Rate Map and establishes that a specific property is not located in a special flood hazard area.
- B. **Letter of Map Revision (LOMR):** A revision based on technical data that depicts changes to flood zones, flood elevations, floodplain and floodway delineations, and planimetric features, which are typically due to manmade changes. One common type of LOMR, a LOMR-F, is a determination that a structure or parcel has been elevated by fill above the base flood elevation and is excluded from the special flood hazard area.
- C. **Conditional Letter of Map Revision (CLOMR):** A formal review and comment by FEMA as to whether a proposed project complies with the minimum National Flood Insurance Program floodplain management criteria. A CLOMR does NOT amend or revise effective Flood Insurance Rate Maps or Flood Insurance Studies.

Lowest Floor (structures other than a manufactured dwelling). The lowest floor of a structure is the lowest floor of the lowest enclosed area of the structure, including the basement. An unfinished or flood resistant enclosure (such as an attached garage), usable solely for parking of vehicles, building access or storage, in an area other than a basement, is not considered the structure's lowest floor, provided that such enclosure is not built as to render the structure in violation of the applicable non-elevation design requirements of LC 16.244(9).

Lowest Floor (manufactured dwellings). For manufactured dwellings the lowest floor means the bottom of the longitudinal chassis frame beam in all A zones and the bottom of the lowest structural member supporting the home in V zones.

Manufactured Dwelling. A manufactured dwelling (aka, manufactured home or mobile home) is a structure, transportable in one or more sections, built on a

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permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. The term "Manufactured Dwelling" does not include a "Recreational Vehicle."

Market Value. The value of real property (i.e. building.) as shown on the most current official Tax Assessor's records or as determined by an independent professional licensed property assessor.

Mean Sea Level (MSL). For the purposes of implementing floodplain management within Lane County MSL shall be synonymous with the National Geodetic Vertical Datum of 1929 (NAVD29).

Natural Elevation. Natural Elevation is the elevation of natural grade, or the grade in existence before June 2, 1999.

New Construction. New construction means a structure for which the "start of construction commenced after June 2, 1999, and also includes any subsequent substantial improvements the structure.

Secondary Containment. A second tank, catchment pit, or other vessel with sealed bottoms and sides contains liquid or solid chemicals leaking or leaching from a primary containment area.

Start of Construction. Start of Construction includes substantial improvements and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, or improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not the alteration affects the external dimensions of a building.

Structure in a Flood Hazard Area. A roofed building with two or more walls, a manufactured home or a tank used to store gas or liquid which is principally above ground or a modular or temporary building.

Substantial Damage. Damage of any origin sustained by a structure whereby the cost of restoring the structure to its pre-damage condition would equal or exceed twenty-five (25) percent of the market value of the structure before the damage occurred.

Substantial Improvement. Any combination of repairs, reconstruction, alteration or improvements to a structure taking place during the life of the structure the cumulative cost of which equals or exceeds twenty-five (25) percent of the "market value" as defined herein of the existing structure before "the start of construction" of the improvement. This term also includes structures which have incurred "substantial damage," regardless of the actual repair work performed. For the purpose of this definition "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however, include any project for improvement of a structure to correct existing violations

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of state or local health, sanitary, building, fire or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions.

(3) Lands to Which This Ordinance Applies. This ordinance shall apply to all areas of flood hazard within Lane County, and overlay the regulations of the underlying zone.

(a) Areas of flood hazard for Lane County under the jurisdiction of the Rural Comprehensive Plan are identified by the Federal Emergency Management Agency in a scientific and engineering report entitled "THE FLOOD INSURANCE STUDY (FIS) FOR LANE COUNTY, OREGON UNINCORPORATED AREAS", with accompanying Flood Insurance Rate Maps (FIRM) The FIS and the FIRM are on file at the offices of the Lane County Land Management Division.

(b) Areas of flood hazard shall also include any land area designated by the Floodplain Administrator as susceptible to inundation of water from any source where the above-referenced Flood Rate Insurance Maps have not identified any special flood areas.

(c) Flood hazard areas described in LC16.244 (3)(a) and (b) shall be adopted by Board Order, made a part of Lane Manual (LM 11.020) and filed in the office of the Land Management Division. Such studies and maps shall form the basis for the administration and implementation of this ordinance.

(4) Warning and Disclaimer of Liability. The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes. Larger floods can and will occur on rare occasions. Flood heights may be increased by human-made or natural causes. This ordinance does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of Lane County, any officer or employee thereof, for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made hereunder.

(5) Designation of Floodplain Administrator. The Planning Director (Director) or his or her designee is hereby appointed as the Floodplain Administrator who is responsible for administering and implementing the provisions of this ordinance.

(6) Duties and Responsibilities of the Administrator. Duties of the Floodplain Administrator shall include, but shall not be limited to:

(a) Review all floodplain development permit applications to assure that the permit requirements of this ordinance have been satisfied.

(b) Review proposed development to assure that necessary permits have been received from those Federal, State, or local governmental agencies from which prior approval is required. Copies of such permits shall be provided and maintained on file.

(c) Review all development permit applications to determine if the proposed development is located in the floodway, and if so, ensure that the restrictions and requirements of LC 16.244(9)(d) are enforced.

(d) When Base Flood Elevation data or floodway data are not available, then the Floodplain Administrator shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a federal, state or other source in order to administer the provisions of this ordinance.

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(e) When Base Flood Elevations or other current engineering data are not available, the Floodplain Administrator shall take into account the flood hazards, to the extent they are known, to determine whether a proposed building site will be reasonably safe from flooding.

(f) Obtain, verify and record the actual elevation in relation to the vertical datum on the effective FIRM, or highest adjacent grade, of the lowest floor level, including basement, of all new construction or substantially improved structures.

(g) Obtain, verify and record the actual elevation, in relation to the vertical datum on the effective FIRM to which any new or substantially improved structures have been flood-proofed.

(h) When flood-proofing is utilized for a structure, the Floodplain Administrator shall obtain certification of design criteria from a registered professional engineer or architect.

(i) Where interpretation is needed of the exact location of boundaries of the SFHA including regulatory floodway (for example, where there appears to be a conflict between a mapped boundary and actual field conditions) the Floodplain Administrator shall make the interpretation. A person contesting the location of the interpreted boundary may make an appeal of the interpretation to the Hearings Official as provided in LC 14.500.

(j) Ensure that all records pertaining to the provisions of this ordinance are permanently maintained and available for public inspection.

(72) Methods of Reducing Flood Losses. In order to accomplish its purpose, this section ~~ordinance~~ includes methods and provisions for:

(a) Restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities.

(b) Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction.

(c) Controlling the alteration of natural floodplains, stream channels and natural protective barriers, which help accommodate or channel flood waters.

(d) Controlling filling, grading, dredging and other development, which may increase flood damage.

(e) Preventing or regulating the construction of flood barriers, which will unnaturally divert flood waters or which may increase flood hazards in other areas.

(3) Lands to Which This Section Applies. This section shall apply to all areas of flood hazard within Lane County, and overlay the regulations of the underlying zone.

(a) Areas of flood hazard for Lane County under the jurisdiction of the Rural Comprehensive Plan are identified by the Federal Insurance Administration in a scientific and engineering report entitled "THE FLOOD INSURANCE STUDY FOR LANE COUNTY, OREGON UNINCORPORATED AREAS", with accompanying Flood Insurance Rate Maps.

(b) Areas of flood hazard shall also include any land area designated by the Director as susceptible to inundation of water from any source where the above-referenced maps have not identified any special flood areas.

(c) Flood hazard areas shall be adopted by Board Order, made a part of Lane Manual (LM 11.020) and filed in the office of the Department. Such studies shall form the basis for the administration and implementation of this section.

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~~(4) Warning and Disclaimer of Liability. The degree of flood protection required by this section is considered reasonable for regulatory purposes. Larger floods can and will occur on rare occasions. Flood heights may be increased by human-made or natural causes. This section does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This section shall not create liability on the part of Lane County, any officer or employee thereof, for any flood damages that result from reliance on this section or any administrative decision lawfully made hereunder.~~

~~(85) Development Subject to Director Floodplain Administrator Approval.~~ Approval shall be obtained before construction or development begins within any area of special flood hazard. Approval shall be required for all structures, manufactured homes, and "development" as this term is defined in LC 16.244(26). Applications for development outside of the regulated floodway shall be reviewed as ministerial land use applications. Applications for development within the regulated floodway for approval shall be filed with the Department pursuant to LC 14.050.

~~(6) Definitions. Except as otherwise provided in LC 16.244, the definitions below shall be used for LC 16.244.~~

~~Area of Special Flood Hazard. The land in the floodplain within a community subject to a one percent chance of flooding in any given year.~~

~~Base Flood. A flood that has a one percent chance of being equaled or exceeded in any given year.~~

~~Basement. Any area of a building having its floor subgrade (below ground level) on all sides.~~

~~Development. For the purposes of LC 16.244, development is defined in LC 16.090, and shall include dredging, paving, and drilling operations and the storage of equipment and materials.~~

~~Existing Manufactured Home Park or Subdivision. Existing manufactured home park or subdivision means a manufactured home park for which the construction of facilities for servicing the lot on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, either final site grading or the pouring of concrete pads and the construction of streets) are completed before December 18, 1985 the effective date of Lane County's conversion to the Regular Flood Insurance Program.~~

~~Expansion to an Existing Manufactured Home Park or Subdivision. Expansion to an existing manufactured home park or subdivision means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, either final site grading or pouring of concrete pads, or the construction of streets).~~

~~Flood or Flooding. A general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland or tidal waters and/or the unusual and rapid accumulations and runoff of surface waters from any source.~~

~~Flood Elevation Determination. A determination by the Administrator of the water surface elevations of the base flood from the approved flood hazard studies.~~

~~Flood Hazard Boundary Map (FHBM). An official map of the County furnished by the Federal Insurance Administration, labeled a Flood Hazard Boundary Map (FHBM) and delineating the boundaries of flood hazard areas.~~

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~~Flood Insurance Rate Map (FIRM). The official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.~~

~~Flood Insurance Study. The official report provided by the Federal Insurance Administration that includes flood profiles and the water surface elevation of the base flood.~~

~~Floodplain. A physical geographic term describing any land area susceptible to being inundated by water from any source.~~

~~Floodplain Management. The operation of an overall program of corrective and preventative measures for reducing flood damage, including, but not limited to, emergency preparedness plans, flood control works and floodplain management regulations.~~

~~Floodplain Management Regulations. This Floodplain ordinance, together with building code requirements, health regulations and any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.~~

~~Floodproofing. Any combination of structural and nonstructural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.~~

~~Floodway, Regulatory. The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the waters of a base flood without cumulatively increasing the water surface elevation more than one foot.~~

~~Start of Construction. For the purposes of LC 16.244, the start of construction is defined in LC 16.090, and shall include the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.~~

~~Structure in a Flood Hazard Area. A walled and roofed building, a mobile home or a tank used in the storage of gas or liquid which is principally above ground.~~

~~Substantial Improvement. Any repair, reconstruction or improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure either (a) before the improvement or repair is started, or (b) if the structure has been damaged, and is being restored, before the damage occurred. For the purpose of this definition "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however, include either (1) any project or improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions, or (2) any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.~~

~~(7) Designation of Administrator. The Director shall:~~

~~(a) Review all development applications to determine that the permit requirements of this section have been satisfied.~~

~~(b) Review all development applications to determine that all necessary permits have been obtained from those Federal, State or Local governmental agencies from which prior approval is required.~~

~~(c) Review all development applications to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of LC 16.244(8)(d) are met.~~

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~~(d) When base flood elevation data has not been provided in the Flood Insurance Study for Lane County, Oregon unincorporated areas, the Director shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a Federal, State or other source in order to administer this section.~~

~~(e) Where base flood elevation data is provided through the Flood Insurance Study or required as in LC 16.244(7)(d), obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.~~

~~(f) For all new or substantially improved flood proofed structures:~~

~~(i) Verify and record the actual elevation (in relation to mean sea level) to which the structure was flood proofed; and~~

~~(ii) Maintain the flood proofing certifications required for elevation of nonresidential construction in zones A1-10, AH and AE.~~

~~(g) Maintain for public inspection all records pertaining to the Provisions of this section.~~

~~(h) Notify adjacent communities and the Department of Land Conservation and Development prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.~~

~~(i) Require that a program of periodic inspection and maintenance be provided with the altered or relocated portion of said watercourse so that the flood carrying capacity of the watercourse is not diminished.~~

~~(j) Make interpretation, where needed, as to exact location of the boundaries of areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). A person contesting the location of the boundary may appeal the interpretation to the Hearings Official as provided in LC 14.500.~~

(98) Provisions for Flood Hazard Reduction. In all areas of flood hazard, the following standards are required:

(a) Provisions applicable to Unnumbered A, A, A1-10, AH and AE and AO zones:

(i) All new construction and substantial improvements shall be constructed with approved materials and utility equipment resistant to flood damage.

(ii) All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

(iii) Electrical, heating, ventilation, plumbing and air-conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

(iv) Agricultural and equine buildings, which are exempt from building code requirements are prohibited in the SFHA.

(b) Review of Building Permits. Where elevation data is not available either through the Flood Insurance Study or from another authoritative source, applications for building and manufactured home placement permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness shall include the use of historical data, high water marks, photographs of past flooding, etc., where available.

(c) Critical Facilities. Construction of new critical facilities shall be prohibited within the 500-year floodplain. Substantial improvements to existing critical facilities may be permissible if the improved facility is constructed on properly compacted fill so that its lowest floor is elevated at least 1 foot above the elevation of the