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(v) Criteria for Encroachments within the Floodway. Any encroachments, including fill, new construction, substantial improvements and other development permitted pursuant to LC 16.244(9)(d)(ii)(aa) through (ii) or LC 16.244(9)(d)(iii) must meet the following criteria:

(aa) 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.

(iiibb) All encroachments permitted pursuant to If-LC 16.244(9)(d)(8)(e)(i) is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions for development in zones AI 30, AH and AE as outlined in Table 1, below.

(ivvi) Land Subdivisions and property line adjustments partitioning of land for residential purposes is are prohibited if the resulting lots or parcels do not have a demonstrable developable area located outside of located entirely within the Floodway: that is of sufficient size to accommodate a dwelling and septic system.

(vii) Construction of new solid board privacy fencing is prohibited within the Floodway, unless the fencing is designed to collapse or break-away, and is cabled together so as to not create debris. As an alternative to a break-away design, a new fence may be designed to allow the passage of water by having a flap or opening in the areas at or below the base flood elevation sufficient to allow floodwaters to pass freely. Stockade panels, chain link, barbed wire and other agricultural fences are not subject to this provision.

(iiviii) 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.

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

Table 1: Provisions for Flood Hazard Reduction

Flood Zone	Foundations and Anchoring
Unnumbered A, AO	 All new construction and substantial improvements shall be anchored to prevent flotation, collapse and lateral movement of the structure.
	(2) All manufactured homes-dwellings must likewise be anchored to prevent flotation, collapse and lateral movement, in accordance with the State of Oregon, Manufactured Dwelling Standard.
	 (3) If foundation walls are used for manufactured dwellings either: (a) Base flood elevations must be established at the proposed site and the manufactured dwelling stand is situated a minimum of 2 feet above the BFE, or; (b) Base flood elevations must be established at the proposed building site and the foundation wall is

Notwithstanding this provision, land divisions for permanent conservation purposes that do not result in a development area located outside of the floodway may be approved if such applications are submitted along with an easement that prohibits the development of the resultant substandard lot or parcel.

Ιĺ	<u>-</u>	opened on one side or end so that floodwater
		cannot be trapped.
	A1-30, AH and AE	(1) All new construction and substantial improvements subject t less than 18 inches of flood water during a 100-year flood shall be anchored to prevent flotation, collapse and latera movement.
1		(2) All manufactured homes subject to less than 18 inches of floo water during a 100-year flood shall be anchored and/o supported to prevent flotation, collapse and lateral movement in accordance with the State of Oregon, Manufacture Dwelling Standard.
		(3) All new construction, substantial improvements an manufactured homes not in an existing manufactured home park or existing manufactured home subdivision subject to 1 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 a Oregon registered engineer or architect.
		(4) All manufactured homes in existing manufactured home park and existing manufactured home subdivisions shall be anchored to prevent flotation, collapse, and lateral movement in accordance with the State of Oregon, Manufacture Dwelling Standard.
		(54) Foundations for all new construction, substantial improvements, and manufactured homes that are not in a existing manufactured home park or existing manufacture home subdivision subject to 18 inches or more of flood water during a 100-year flood or located within a designate floodway, shall be certified by an Oregon registered professional engineer or architect to meet the following the state of the
		minimum foundation requirements: (a) concrete footings sized for 15000 psf soil pressur unless data to substantiate the use of higher values ar submitted.
		 (b) footings extending below the frost line. (c) reinforced concrete, reinforced masonry, or othe suitably designed supporting systems to resist all vertica and lateral loads which may reasonably occurred independently or combined.
		(5) If foundation walls are used for manufactured dwellings th stand shall be a minimum of two feet above the BFE unles the foundation wall is opened on one side or end so tha floodwater cannot be trapped.
		(6) All Manufactured homes located in an existing manufacture home park or existing manufactured home subdivision shall b supported in accordance with the State of Oregon Manufactured Dwelling Standard.
	Flood Zone	<u>Utilities</u>

Unnumbered A,	(l)	All new and replacement water supply systems shall be
AO		designed to minimize or eliminate infiltration of flood waters into the system.
	(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
	(3)	flood waters; and Whenever feasible, all new and replacement soil absorption systems must be setback a minimum of 25 feet from the
		SFHA. Where a suitable location for a standard (i.e. tank/ leach field) system is not available outside of the SFHA, new and replacement systems may be placed in the SFHA
1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-		provided they are:
		(a) designed to minimize or eliminate infiltration of flood waters into the system (guidance on installing an
		appropriate sewage backflow device is outlined in the
		FEMA memorandum: Installing Backflow Valves,
		April 2008. This memorandum is on file with the
		Land Management Division);
		(b) located at the highest elevation above the flood source as practicable; and
		(c) located at the maximum perpendicular distance away
		from the flood source as practicable. Individual
		sewerage facilities shall be located to avoid impairment
A1-30, AH-and	(1)	to them or contamination from them during flooding. All new and replacement water supply systems shall be
AE	1.7	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
	/A\	at least one foottwo feet above the 100-year flood elevation.
	(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.
	(3)	Whenever feasible, all new and replacement soil absorption
	, ,	systems must be setback a minimum of 25 feet from the
		SFHA. Where a suitable location for a standard (i.e. tank/
		leach field) system is not available outside of the SFHA, new and replacement systems may be placed in the SFHA
		provided they are:
		(a) designed to minimize or eliminate infiltration of flood
		waters into the system (guidance on installing an
		appropriate sewage backflow device is outlined in the
		FEMA memorandum: Installing Backflow Valves, April 2008. This memorandum is on file with the
		Land Management Division);
		(b) located at the highest elevation above the flood
		source as practicable; and
		(c) located at the maximum perpendicular distance away

ı	from the flood source as museticable
	from the flood source as practicable.
	Individual sewerage facilities shall be located to avoid impairment to
l	them or contamination from them during flooding.
Flood Zone	Elevation: Residential
Unnumbered -A,	New construction and substantial improvement of any residential
AO	structure shall have the lowest floor, including basement, elevated
	two-three 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." This bulletin is on file with the Land Management
	Division.
A1-30, AH and	New construction and substantial improvement of any residential
AE	structure shall have the lowest floor, including basement, elevated to
	one foottwo feet above base flood elevation. Crawlspace construction
	is outlined in FEMA Technical Bulletin 11-01 entitled "Crawlspace
	Construction of Buildings located in Special Flood Hazard." This
	hulletin is on file with the Land Management Division.
Flood Zone	Elevation: Nonresidential
Unnumbered A,	New construction and substantial improvement of any commercial,
AO	industrial or other nonresidential structure shall either have the lowest
	floor, including basement, elevated two-three feet above grade; or,
	together with attendant utility and sanitary facilities, shall be flood-
	proofed to a level two-three feet above the highest adjacent grade, so
	the structure is watertight with walls substantially impermeable to the
	passage of water.
A1-30, AH and	New construction and substantial improvement of any commercial,
AE	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 facilities shall:
	(a) be flood-proofed to one foottwo feet 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; and
	(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 Floodplain Administrator as
	set forth in LC 16.244(7)(fh)(ii). Nonresidential
	structures that are elevated, not flood-proofed, must
	meet the same standards as residential construction of
I	fully enclosed areas below the lowest floor in AE zones
	A1 30, AH and AE.
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	/ 1)
	(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,	(1) All manufactured dwellings placed or substantially improved
AO	within A zones shall be elevated so that the bottom of the
	longitudinal chassis frame beam is a minimum of three feet
	above the highest adjacent grade. homes not in an existing
	manufactured home park or subdivision shall have the lowest
	floor elevated two feet above the highest adjacent grade.
	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	(1) All manufactured homes that are placed or substantially
AE	improved within Zones A1-30, AH-and-AE zones shall be
	elevated so that the bottom of the longitudinal chassis
	frame beam is a minimum of two feet above the base flood
	elevation. , (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
A, 1 30, AH and	In all Special Flood Hazard Areas, Recreational vehicles which
AE, and AO	are an allowed use or structure permitted within the underlying
	base zone, must either: shall
	(ia) -be placed on the site for fewer than 180 consecutive
	days; and
	(b) be fully licensed and ready for highway use, on its
	wheels or jacking system, is attached to the site only by

		* 1 4
		quick disconnect type utilities and security devices, and
		hasve no permanently attached structures or additions-,
		or
		(c) (ii) shall-satisfy-meet all the permit requirements of LC
		16.244(59) including the applicable elevation
		standards and the anchoring requirements for elevation
-		of manufactured dwellings. 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
***************************************	Flood Zone	Enclosed Areas
	Unnumbered A,	Fully enclosed areas below the lowest floor shall be designed to
	AO	automatically equalize hydrostatic flood forces on exterior walls by
*		allowing for the entry and exit of floodwaters. Designs for meeting
- Constitution of the Cons		this requirement must either be certified by a registered professional
		engineer or architect, or must meet or exceed the following minimum
		criteria:
		(a) A minimum of two openings located on separate walls
		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.
1		(b) Openings shall be located to allow unrestricted cross-
1		flow of floodwaters through the enclosed area from one
		side to the other.
l		(c) Openings may be equipped with screens, louvers, or
١		other coverings or devices provided that they permit the
		automatic entry and exit of floodwaters.
۱	A1-30, AH and	For residential construction, fully enclosed areas below the lowest
ŀ	AE	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:
-		(a) A minimum of two openings located on separate walls
3		having a total net area of not less than one square inch
Toolson and the		for every square foot of enclosed area subject to
ACAMO MINISTRA		flooding shall be provided. The bottom of all openings
and the same of th		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
A 400 mm mm		automatic entry and exit of flood waters.
•	Flood Zone	Roads
-	Unnumbered—A,	Adequate provisions shall be made for accessibility during a 100-year
	AO	flood, so as to ensure ingress and egress for ordinary and emergency
ı	AV	11000, so as to ensure ingress and egress for ordinary and emergency

	1_1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
A120 117		cles and services during potential future flooding.
A1-30, AH and	(l)	Adequate provisions shall be made for accessibility during a
AE		100-year flood, so as to ensure ingress and egress for ordinary
		and emergency vehicles and services during potential future
ri o i include co		flooding.
A POPUL MILITARY AND A	(2)	No road surface of any new street, road or access road shall be
<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>		at an elevation less than one foot below the base flood height.
Flood Zone		divisions and Partitions
Unnumbered—A,	(1)	All land subdivision proposals shall be consistent with the
AO		need to minimize flood damage;
	(2)	All land subdivision proposals shall have public utilities and
		facilities such as sewer, gas, electrical and water systems
		located and constructed to minimize flood damage;
	(3)	All land subdivision proposals shall have adequate drainage
		provided to reduce exposure to flood damage; and
	(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).
A1 30, AH and	(1)	All land subdivision and partitioning proposals shall be
AE		consistent with the need to minimize flood damage.
	(2)	All land subdivision proposals shall have adequate drainage to
		reduce exposure to flood damage, including returning water.
00 A A A A A A A A A A A A A A A A A A	(3)	100-year flood elevation data shall be provided and shown on
		final partition maps and subdivision plats. Applicant must show
Many VAV - AV - Tay		the boundaries of the 100-year flood and floodway on the final
A commission As		partition map or subdivision plat.
	(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
	/ m s	shown on the final partition map or subdivision plat.
	(5)	All subdivision proposals shall have public utilities and
The state of the s		facilities such as sewer, gas, electrical and water systems
Through Ann	2.50	located and constructed to minimize flood damage.
an_	(6)	Residential building lots or parcels shall have adequate
		buildable area outside of the regulatory Floodway in
		accordance with LC16.244(9)(d)(vi).
Flood Zone	***************************************	Flood Proofing of Accessory Structures
A, AE and AO		ef from the elevation or dry flood-proofing standards may be
		ted for an accessory structure containing no more than 400
	squa	re feet. Such a structure must meet the following standards:
		(a) The accessory structure shall be located on a
MARKET TRANSPORT		property with a dwelling;
		(b) It shall not be used for human habitation and may be
		used solely for parking of vehicles or storage of items
An appropriate variety of the state of the s		having low damage potential when submerged;
		(c) It shall be constructed of flood resistant materials;

	(d)	It shall be constructed and placed on the lot to offer
		the minimum resistance to the flow of floodwaters;
	(e)	It shall be firmly anchored to prevent flotation;
	(f)	Services such as electrical and heating equipment
		shall be elevated or flood-proofed to or above the
		Flood Protection Elevation;
	(g)	It shall be designed to equalize hydrostatic flood
		forces on exterior walls by allowing for the automatic
		entry and exit of floodwater. Designs for complying
		with this requirement must be certified by a licensed
		professional engineer or architect or
		(i) provide a minimum of two openings with
		a total net area of not less than one square inch for
		every square foot of enclosed area subject to
		flooding;
		(ii) the bottom of all openings shall be no
		higher than one foot above the higher of the exterior
		or interior grade or floor immediately below the
		opening;
		(iii) openings may be equipped with screens,
		louvers, valves or other coverings or devices provided
	-	they permit the automatic flow of floodwater in both
	(%)	directions without manual intervention.
	(h)	All fertilizers, automotive fuels and lubricants, paint thinners and other similar hazardous materials
		stored within a wet flood proofed structure must be
		stored in a secondary containment vessel. The
		secondary containment vessel must be securely
		mounted above the flood protection level in such a
		manner that it cannot be inundated or become
		mobile during a base flood event.
	(i)	Applicants seeking a wet flood proofing permit must
		sign and have recorded a "Wet Flood Proofing
		Covenant and Agreement" instrument, which
		permanently documents the use limitation of the
		structure.
Flood Zone	Fill Mater	al
A, AE and AO	1	ial placed within the SFHA shall comply with the
	following s	
	(a)	Fill must consist of soil and rock materials only.
	(b)	Dredged material may be used as fill only upon
		certification of suitability by a registered professional
		engineer.
	(c)	The use of fill shall not increase flooding or cause
	(15)	drainage problems on neighboring properties.
	(d)	Landfills, dumps and sanitary landfills are not
	(4)	permitted in the SFHA.
	(e)	All fill used to support structures within the SFHA
	1	must:

	(i) Be compacted to 95% of the maximum
	density obtainable by the Standard Proctor Test
	(ASTM Standard D-698) or its equivalent, and its
	suitability to support structures certified by a
	registered professional engineer.
	(ii) Have slopes no greater than two
	horizontal to one vertical. Flatter slopes may be
	required where velocities may result in erosion.
	Adequate erosion protection must be provided for fill
	slopes exposed to moving flood waters (slopes
	exposed to flows with velocities of up to 5 feet per
	second (fps) during the base flood must, at a
	minimum, be protected by a permanent cover of
	grass, vines, weeds, or similar vegetation; slopes
	exposed to flows with velocities greater than 5 fps
	during the base flood must, at a minimum, be
	protected by appropriately designed stone, rock,
	concrete, or other durable products.
Flood Zone	Alteration of a Watercourse
A, AE and AO	A water course is considered altered when any change occurs
	within its banks, including installation of new culverts and
	bridges, or size modifications to existing culverts and bridges.
	The following provisions apply to the alteration of watercourse.
	(a) The bankfull stage flood carrying capacity of the
	altered or relocated portion of the water course shall
	not be diminished. Prior to issuance of a floodplain
	development permit, the applicant must submit a
	description of the extent to which any water course
	will be altered or relocated as a result of the
	proposed development and submit certification by a
	registered professional engineer that the bankfull
	flood carrying capacity of the water course will not
	be diminished.
	(b) Adjacent communities, the U.S. Army Corps of
	Engineers, Oregon Department of State Lands, and
	Oregon Department of Land Conservation and
	Development must be notified prior to any alteration
	or relocation of a water source. Evidence of
	notification must be submitted to the Floodplain
	Administrator and to the Federal Emergency
	Management Agency.
	(c) The applicant shall be responsible for providing the
	necessary maintenance for the altered or relocated
	portion of the water course so that the flood carrying
	capacity will not be diminished.
(010) F	progency Permits. The Director Floodplain Administrator may issue an

(910) Emergency Permits. The Director-Floodplain Administrator 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.

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- (b) 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-Floodplain Administrator shall condition emergency permits to protect and conserve the waters of this County.

(4011) 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 reconstruction, 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 regulatory floodway if any increase in flood levels during the base flood discharge would result.
- (b) Special Floodway Variances. For any existing lot or parcel within the regulatory floodway that can be demonstrated to have been rendered not developable for the primary use allowed in the base zone by application of LC 16.244(9)(d)(i), a variance to waive the applicable development restrictions may be applied for. Variances will be processed following the procedures outlined in LC 16.256 with additional findings of compliance addressing the following criteria:
- (i) It shall be the burden of the property owner to demonstrate how application of LC 16.244(9)(d)(i) would render the lot or parcel undevelopable for a dwelling or for the primary use allowed in the base zone.
- (ii) It can be demonstrated that the lot or parcel was lawfully created prior to the date that LC 16.244(9)(d)(i) became effective and that the inability to develop the lot or parcel is not the result of a property line adjustment that occurred subsequent to the date LC 16.244(9)(d)(i) took effect.
- (iii) Due to topography, parcel size or configuration, options for development outside of the floodway are physically impossible.
- (c) Any development permitted pursuant to LC 16.244 (11)(b) shall meet the criteria of LC 16.244(9)(d)(v) and shall also meet the following standards:
- (i) All structures shall be located at the maximum distance away from the flood source and at the highest elevation above the flood source as practicable to mitigate the risk of flood damage.
- (ii) Any approved development shall be the minimum size and scale necessary to alleviate the difficulty and render the property developable.

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(iii) Any habitable structures permitted pursuant to LC 16.244(11)(b) must be constructed on a pier and beam supported foundation in order to maximize conveyance of floodwaters.

(bd) 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)

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

16.244 Floodplain Combining Zone (/FP-RCP).

- (1) Purpose. The purposes of LC 16.244 are to:
 - (a) Protect human life, 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 undertaken at the expense of the general public.
- (d) Minimize unnecessary and prolonged disruption of commerce and public services 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 special flood hazard areas so as to minimize future blight.
- (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 heneficial functions of the floodplain.
- (2) <u>Methods of Reducing Flood Losses</u>. 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.
- (h) 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) <u>Definitions</u>. Unless specifically defined in LC 16.244(3) below, words and phrases used in LC 16.244 shall have the meanings provided in Lane Code 16.090.

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 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).

<u>Bankfull Stage</u>. 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 FRIM to the nearest foot and on the FIS to the nearest 0.1 foot.

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 support foundation system.

<u>Critical Facility</u>. 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;
- (c) Public and private utility facilities that are vital to maintaining or restoring normal services to flooded areas before, during, and after a flood;
- (d) 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.

Critical Facilities do not include surface and ground water related facilities or infrastructure necessary for the intake, processing or treatment of drinking water.

<u>Datum</u>. 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).

<u>Development</u>. 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 and the storage of equipment and 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 not 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; or
- (e) Posts or beams with thickness and width dimensions no larger than 12 inches by 12 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.

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

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

Encroachment. An encroachment is the expansion 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.

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 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.

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

<u>Floodplain Management</u>. 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 section of Lane Code, 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 two feet above the base flood elevation in AE zones and three 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 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 with 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.

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

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).

- (e) Any substance defined as a hazardous substance pursuant to section 101(14) of the federal Comprehensive Environmental Response, Compensation and Liability Act, P.L. 96-510, as amended.
 - (d) Oil as defined in ORS 465,200(19).
- (e) Any substance that meets the criteria established pursuant to ORS 465.400.

Highest Adjacent Grade (HAG). The highest natural and unaltered elevation of the ground surface as of December 18, 1985, adjacent to the proposed walls of a structure, unless the adjacent grade has been altered by fill placed and approved in accordance with a fill permit issued pursuant to LC 16.244.

Letter of Map Change (LOMC). 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 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 Oregon-licensed property appraiser.

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).

<u>Natural Elevation</u>. Natural Elevation is the elevation of natural grade, or the grade in existence before December 18, 1985.

New Construction. New construction means a structure for which the "start of construction" commenced after December 18, 1985, and also includes any subsequent substantial improvements to the structure.

<u>Primary Containment</u>. A tank, pit, container or vessel of first containment of liquid or chemical.

<u>Secondary Containment</u>. A second tank, catchment pit, or other vessel with sealed bottoms and sides that contains liquid or solid chemicals leaking or leaching from a primary containment area; monitoring and recovery are required.

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 crection 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 that alteration affects the external dimensions of the 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 percent (25%) 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 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 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.

- (4) <u>Lands to Which This Section Applies</u>. 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 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).

- (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 hazard areas.
- (c) Flood hazard areas described in LC 16.244(4)(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 Department. Such studies shall form the basis for the administration and implementation of this section.
- (5) 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.
- (6) <u>Designation of Floodplain Administrator</u>. The Planning Director or his or her designee is hereby appointed as the Floodplain Administrator who is responsible for administering and implementing the provisions of this section.
- (7) <u>Duties and Responsibilities of the Administrator</u>. The duties of the Floodplain Administrator shall include but not be limited to:
- (a) Review all floodplain development permit applications to assure that the permit requirements of this section have been satisfied.
- (b) Review proposed development to assure that all 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 restriction and requirements of LC 16.244(9)(d) are met.
- (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 section.
- (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 areas of special flood hazards including the 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 boundary may appeal the interpretation to the Hearings Official as provided in LC 14.500.

- (j) Ensure that all records pertaining to the provisions of this section are permanently maintained and available for public inspection.
- (8) <u>Development Subject to Floodplain Administrator Approval.</u> 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(3). Applications for development outside of the regulated floodway shall be reviewed as ministerial land use applications. Applications for development within the regulated floodway shall be filed with the Department pursuant to LC 14.050 and processed pursuant to LC 14.100.
- (9) <u>Provisions for Flood Hazard Reduction</u>. In all areas of flood hazard, the following standards are required:
 - (a) Provisions applicable to Unnumbered A, 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 Areas of Special Flood Hazards.
- (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 full extent of the 500-year floodplain, including the SFHA. Substantial improvements to existing critical facilities may be permissible if:
- (i) The substantially improved facility is constructed on fill placed in accordance with the fill material criteria provided in Table 1 of LC 16.244(9).
- (ii) The lowest floor of the substantially improved facility is elevated on fill at least 1 foot above the elevation of the 500-year flood.
- (iii) The substantially improved critical facility has at least one access road connected to land outside the 500-year floodplain that is capable of supporting a 4,000-pound vehicle. The entire surface of the access road must be no lower than the elevation of the 500-year flood.
- (iv) Where appropriate, flood proofing and sealing measures must be taken to ensure that any hazardous materials used or stored on site will not be displaced by or released into floodwaters. Appropriate flood proofing requirements are outlined in the FEMA Technical Bulletin 3-93.
- (d) Floodways. Located within areas of special flood hazard established in LC 16.244(4) 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 create erosion potential, the following provisions apply:
- (i) Except as provided in LC 16.244(9)(d)(ii)(aa) through (ii) and LC 16.244(9)(d)(iii) and (iv) below, all encroachments, including fill, new construction,

substantial improvements, below ground storage tanks and septic systems, structures elevated on piers, posts or pilings and all other development are prohibited.

- (ii) Exceptions. Where permitted within the underlying base zone, the following encroachments and uses may be conditionally permitted within the floodway provided they meet the standards set forth in LC 16.244(9)(d)(v),
 - (aa) Public roads;
 - (bb) Bridges and culverts;
 - (cc) Public and private utilities and associated infrastructure;
- (dd) Pump houses used exclusively for well operation and maintenance, which are less than 25 square feet in size;
 - (ee) Sand and gravel extraction operations, excluding batch

processing;

- (ff) Revetments;
- (gg) Structures for flood control;
- (hh) Docks, piers, boat ramps, landings and stairs;
- (ii) Fish passage structures and channels.
- (iii) For any existing lot or parcel within the regulatory floodway that can be demonstrated to have been rendered not developable for a dwelling or for the primary use allowed in the base zone, by application of the LC 16.244(9)(d)(i), a variance to waive the applicable development restrictions may be applied for pursuant to LC 16.244(11)(b). Any development permitted pursuant to this provision shall also meet the criteria of LC 16.244(9)(d)(v).
- (iv) Temporary Encroachments. Temporary encroachments in the Floodway for the purposes of capital improvement projects (including bridge construction/repair) are permitted provided they meet the standards and provisions outlined in the FEMA Region X Guidance Memorandum: Temporary Encroachments into the Floodway, October 2009. This memorandum is on file in the Department of Public Works, Land Management Division offices.
- (v) Criteria for Encroachments within the Floodway. Any encroachments, including fill, new construction, substantial improvements and other development permitted pursuant to LC 16.244(9)(d)(ii)(aa) through (ii) or LC 16.244(9)(d)(iii) must meet the following criteria:
- (aa) 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.
- (bb) All encroachments permitted pursuant to LC 16.244(9)(d) shall comply with all applicable flood hazard reduction provisions for development in zones AE as outlined in Table 1, below.
- (vi) Land divisions and property line adjustments for residential purposes are prohibited if the resulting lots or parcels do not have a demonstrable developable area located outside of the Floodway that is of sufficient size to accommodate a dwelling and septic system. In sert the following
- (vii) Construction of new solid board privacy fencing is prohibited within the Floodway, unless the fencing is designed to collapse or break-away, and is cabled together so as to not create debris. As an alternative to a break-away design, a new fence may be designed to allow the passage of water by having a flap or opening in the areas at or below the base flood elevation sufficient to allow floodwaters to pass freely. Stockade panels, chain link, barbed wire and other agricultural fences are not subject to this provision.

Notwithstanding this provision, land divisions for permanent conservation purposes that do not result in a development area located outside of the floodway may be approved if such applications are submitted along with an easement that prohibits the development of the resultant substandard lot or parcel.

(viii) 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.

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

Table 1: Provisions for Flood Hazard Reduction

Flood Zone	Foundations and Anchoring
A, AO	 All new construction and substantial improvements shall be anchored to prevent flotation, collapse and lateral movement of the structure. All manufactured dwellings must likewise be anchored to prevent flotation, collapse and lateral movement, in accordance with the State of Oregon, Manufactured Dwelling Standard. If foundation walls are used for manufactured dwellings either: (a) Base flood elevations must be established at the proposed site and the manufactured dwelling stand is
	situated a minimum of 2 feet above the BFE, or; (b) Basc flood elevations must be established at the proposed building site and the foundation wall is opened on one side or end so that floodwaters cannot be trapped.
AE	(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 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) Foundations for all new construction, substantial improvements, and manufactured homes 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: (a) concrete footings sized for 1500 psf soil pressure unless data to substantiate the use of higher values are submitted. (b) footings extending below the frost line.

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	(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. (5) If foundation walls are used for manufactured dwellings the stand shall be a minimum of two feet above the BFE unless the foundation wall is opened on one side or end so that floodwater cannot be trapped.
Flood Zone	Utilities
A, AO	 All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system. New and replacement public or community squares of facilities.
	(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
	(3) Whenever feasible, all new and replacement soil absorption systems must be setback a minimum of 25 feet from the SFHA. Where a suitable location for a standard (i.e. tank/ leach field) system is not available outside of the SFHA, new and replacement systems may be placed in the SFHA provided they are:
	(a) designed to minimize or eliminate infiltration of flood waters into the system (guidance on installing an appropriate sewage backflow device is outlined in the FEMA memorandum: Installing Backflow Valves, April 2008. This memorandum is on file with the Land Management Division);
	 (b) located at the highest elevation above the flood source as practicable; and (c) located at the maximum perpendicular distance away from the flood source as practicable.
AE	(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 two feet above the 100-year flood elevation.
	(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.
	(3) Whenever feasible, all new and replacement soil absorption systems must be setback a minimum of 25 feet from the SFHA. Where a suitable location for a standard (i.e. tank/ leach field) system is not available outside of the SFHA, new and replacement systems may be placed in the SFHA provided they are:
	(a) designed to minimize or eliminate infiltration of flood waters into the system (guidance on installing an appropriate sewage backflow device is outlined in the FEMA memorandum: Installing Backflow Valves, April

Flood Zone A, AO Flood Zone A, AO	Management Division); (b) located at the highest elevation above the flood source as practicable; and (c) located at the maximum perpendicular distance away from the flood source as practicable. Elevation: Residential New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated three 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." This bulletin is on file with the Land Management Division. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to two feet above base flood elevation. Crawlspace construction is outlined in FEMA Technical Bulletin 11-01 entitled "Crawlspace Construction of Buildings located in Special Flood Hazard." This bulletin is on file with the Land Management Division. Elevation: Nonresidential New construction and substantial improvement of any commercial,
A, AO Flood Zone A, AO	practicable; and (c) located at the maximum perpendicular distance away from the flood source as practicable. Elevation: Residential New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated three 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." This bulletin is on file with the Land Management Division. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to two feet above base flood elevation. Crawlspace construction is outlined in FEMA Technical Bulletin 11-01 entitled "Crawlspace Construction of Buildings located in Special Flood Hazard." This bulletin is on file with the Land Management Division. Elevation: Nonresidential
A, AO Flood Zone A, AO	from the flood source as practicable. Elevation: Residential New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated three 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." This bulletin is on file with the Land Management Division. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to two feet above base flood elevation. Crawlspace construction is outlined in FEMA Technical Bulletin 11-01 entitled "Crawlspace Construction of Buildings located in Special Flood Hazard." This bulletin is on file with the Land Management Division. Elevation: Nonresidential
A, AO Flood Zone A, AO	Flevation: Residential New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated three 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." This bulletin is on file with the Land Management Division. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to two feet above base flood elevation. Crawlspace construction is outlined in FEMA Technical Bulletin 11-01 entitled "Crawlspace Construction of Buildings located in Special Flood Hazard." This bulletin is on file with the Land Management Division. Elevation: Nonresidential
A, AO Flood Zone A, AO	New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated three 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." This bulletin is on file with the Land Management Division. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to two feet above base flood elevation. Crawlspace construction is outlined in FEMA Technical Bulletin 11-01 entitled "Crawlspace Construction of Buildings located in Special Flood Hazard." This bulletin is on file with the Land Management Division. Elevation: Nonresidential
A, AO Flood Zone A, AO	New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated three 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." This bulletin is on file with the Land Management Division. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to two feet above base flood elevation. Crawlspace construction is outlined in FEMA Technical Bulletin 11-01 entitled "Crawlspace Construction of Buildings located in Special Flood Hazard." This bulletin is on file with the Land Management Division. Elevation: Nonresidential
AE Flood Zone A, AO	structure shall have the lowest floor, including basement, elevated three 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." This bulletin is on file with the Land Management Division. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to two feet above base flood elevation. Crawlspace construction is outlined in FEMA Technical Bulletin 11-01 entitled "Crawlspace Construction of Buildings located in Special Flood Hazard." This bulletin is on file with the Land Management Division. Elevation: Nonresidential
Flood Zone A, AO	three 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." This bulletin is on file with the Land Management Division. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to two feet above base flood elevation. Crawlspace construction is outlined in FEMA Technical Bulletin 11-01 entitled "Crawlspace Construction of Buildings located in Special Flood Hazard." This bulletin is on file with the Land Management Division. Elevation: Nonresidential
Flood Zone A, AO	is outlined in FEMA Technical Bulletin 11-01 entitled "Crawlspace Construction of Buildings located in Special Flood Hazard." This bulletin is on file with the Land Management Division. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to two feet above base flood elevation. Crawlspace construction is outlined in FEMA Technical Bulletin 11-01 entitled "Crawlspace Construction of Buildings located in Special Flood Hazard." This bulletin is on file with the Land Management Division. Elevation: Nonresidential
Flood Zone A, AO	Construction of Buildings located in Special Flood Hazard." This bulletin is on file with the Land Management Division. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to two feet above base flood elevation. Crawlspace construction is outlined in FEMA Technical Bulletin 11-01 entitled "Crawlspace Construction of Buildings located in Special Flood Hazard." This bulletin is on file with the Land Management Division. Elevation: Nonresidential
Flood Zone A, AO	bulletin is on file with the Land Management Division. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to two feet above base flood elevation. Crawlspace construction is outlined in FEMA Technical Bulletin 11-01 entitled "Crawlspace Construction of Buildings located in Special Flood Hazard." This bulletin is on file with the Land Management Division. Elevation: Nonresidential
Flood Zone A, AO	New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to two feet above base flood elevation. Crawlspace construction is outlined in FEMA Technical Bulletin 11-01 entitled "Crawlspace Construction of Buildings located in Special Flood Hazard." This bulletin is on file with the Land Management Division. Elevation: Nonresidential
Flood Zone A, AO	structure shall have the lowest floor, including basement, elevated to two feet above base flood elevation. Crawlspace construction is outlined in FEMA Technical Bulletin 11-01 entitled "Crawlspace Construction of Buildings located in Special Flood Hazard." This bulletin is on file with the Land Management Division. Elevation: Nonresidential
A, AO	two feet above base flood elevation. Crawlspace construction is outlined in FEMA Technical Bulletin 11-01 entitled "Crawlspace Construction of Buildings located in Special Flood Hazard." This bulletin is on file with the Land Management Division. Elevation: Nonresidential
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A, AO	Elevation: Nonresidential
A, AO	New construction and substantial improvement of any commercial.
AE	
AE	industrial or other nonresidential structure shall either have the lowest
AE	floor, including basement, elevated three feet above grade; or,
AE	together with attendant utility and sanitary facilities, shall be flood-
AE	proofed to a level three feet above the highest adjacent grade, so the
AE	structure is watertight with walls substantially impermeable to the
AE	passage of water.
	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 facilities shall:
	(a) be flood-proofed to two feet 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; and
	(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 atmentional design
	development and/or review of the structural design,
	specifications and plans. Such certification shall be
	specifications and plans. Such certification shall be provided to the Floodplain Administrator as set forth in
	specifications and plans. Such certification shall be provided to the Floodplain Administrator as set forth in LC 16.244(7)(h). Nonresidential structures that are
	specifications and plans. Such certification shall be provided to the Floodplain Administrator as set forth in LC 16.244(7)(h). Nonresidential structures that are elevated, not flood-proofed, must meet the same
	specifications and plans. Such certification shall be provided to the Floodplain Administrator as set forth in LC 16.244(7)(h). Nonresidential structures that are
	meeting provisions of this subsection based on their

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	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			
A, AO	(1) All manufactured dwellings placed or substantially improved			
	within A zones shall be elevated so that the bottom of the			
	longitudinal chassis frame beam is a minimum of three feet			
	above the highest adjacent grade.			
AE	(1) All manufactured homes that are placed or substanti			
T.L.	improved within AE zones shall be elevated so that the bottom			
	of the longitudinal chassis frame beam is a minimum of			
	feet above the base flood elevation.			
Flood Zone	Elevation of Recreational Vehicles			
A,AE, and AO	In all Special Flood Hazard Areas, recreational vehicles which are an			
	allowed use or structure permitted within the underlying base zone,			
	must either:			
	(a) be placed on the site for fewer than 180 consecutive			
	days;			
	(b) be fully licensed and ready for highway use, on its			
	wheels or jacking system, attached to the site only by			
	quick disconnect type utilities and security devices, and			
	have no permanently attached structures or additions, or			
	(c) meet all the permit requirements of LC 16.244(9)			
	including the applicable elevation standards and anchoring requirements for manufactured dwellings.			
	anchoring requirements for manufactured owellings			
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Flood Zone	Enclosed Areas			
Flood Zone A, AO	Enclosed Areas Fully enclosed areas below the lowest floor shall be designed to			
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	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
Eland 7	automatic entry and exit of flood waters. Roads
Flood Zone	
A, AO	Adequate provisions shall be made for accessibility during a 100-year
	flood, so as to ensure ingress and egress for ordinary and emergency
AE	vehicles and services during potential future flooding. (1) Adequate provisions shall be made for accessibility during a
AC.	(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.
	(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.
Flood Zone	Subdivisions and Partitions
A, AO	(1) All land division proposals shall be consistent with the need to
11, 110	minimize flood damage;
	(2) All land division proposals shall have public utilities and
	facilities such as sewer, gas, electrical and water systems
	located and constructed to minimize flood damage;
	(3) All land division proposals shall have adequate drainage
	provided to reduce exposure to flood damage; and
	(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).
AE	(1) All land division proposals shall be consistent with the need to
	minimize flood damage.
	(2) All land division proposals shall have adequate drainage to
	reduce exposure to flood damage, including returning water.
	(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
	partition map or subdivision plat.
	(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.
	(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.
	(6) Residential building lots or parcels shall have adequate
	buildable area outside of the regulatory Floodway in

	accordance with LC 16.244(9)(d)(vi).
Flood Zone	Wet Flood Proofing of Accessory Structures
A, AE and AO	Relief from the elevation or dry flood-proofing standards may be granted for an accessory structure containing no more than 400
	square feet. Such a structure must meet the following standards:
	(a) The accessory structure shall be located on a property
	with a dwelling;
	(b) It shall not be used for human habitation and may be
	used solely for parking of vehicles or storage of items having low damage potential when submerged;
	(c) It shall be constructed of flood resistant materials;
	(d) It shall be constructed and placed on the lot to offer the
	minimum resistance to the flow of floodwaters;
	(e) It shall be firmly anchored to prevent flotation;
	(f) Services such as electrical and heating equipment shall
	be elevated or flood-proofed to or above the Flood Protection Elevation;
	(g) It shall be designed to equalize hydrostatic flood forces
	on exterior walls by allowing for the automatic entry and
	exit of floodwater. Designs for complying with this
	requirement must be certified by a licensed professional
	engineer or architect or
	(i) provide a minimum of two openings with a
	total net area of not less than one square inch for every
	square foot of enclosed area subject to flooding;
	(ii) the bottom of all openings shall be no higher
	than one foot above the higher of the exterior or interior
	grade or floor immediately below the opening;
	(iii) openings may be equipped with screens,
	louvers, valves or other coverings or devices provided
	they permit the automatic flow of floodwater in both
	directions without manual intervention.
	(h) All fertilizers, automotive fuels and lubricants, paint
	thinners and other similar hazardous materials stored
	within a wet flood proofed structure must be stored in a
	secondary containment vessel. The secondary
	containment vessel must be securely mounted above the
	flood protection level in such a manner that it cannot be
	inundated or become mobile during a base flood event.
	(i) Applicants seeking a wet flood proofing permit must
	sign and have recorded a "Wet Flood Proofing Covenant
	and Agreement" instrument, which permanently
	documents the use limitation of the structure.
Flood Zone	Fill Material
A, AE and AO	Fill material placed within the SFHA shall comply with the following
	standards:
	(a) Fill must consist of soil and rock materials only.
	(b) Dredged material may be used as fill only upon
	certification of suitability by a registered professional
	engineer.

	(c)	The use of fill shall not increase flooding or cause
		drainage problems on neighboring properties.
	(d)	Landfills, dumps and sanitary landfills are not permitted
		in the SFHA.
	(e)	All fill used to support structures within the SFHA must:
		(i) Be compacted to 95% of the maximum
		density obtainable by the Standard Proctor Test (ASTM
		· · · · · · · · · · · · · · · · · · ·
***		Standard D-698) or its equivalent, and its suitability to
****		support structures certified by a registered professional
10 c / A A A A A A A A A A A A A A A A A A		engineer.
		(ii) Have slopes no greater than two horizontal
		to one vertical. Flatter slopes may be required where
		velocities may result in erosion. Adequate erosion
		protection must be provided for fill slopes exposed to
The second secon		moving flood waters (slopes exposed to flows with
		velocities of up to 5 feet per second (fps) during the base
		flood must, at a minimum, be protected by a permanent
		cover of grass, vines, weeds, or similar vegetation;
		slopes exposed to flows with velocities greater than 5
		fps during the base flood must, at a minimum, be
		protected by appropriately designed stone, rock,
		concrete, or other durable products.
Flood Zone		of a Watercourse
A, AE and AO	ľ	urse is considered altered when any change occurs within
		ncluding installation of new culverts and bridges, or size
	modificatio	ns to existing culverts and bridges. The following
	provisions a	apply to the alteration of watercourse.
	(a)	The bankfull stage flood earrying capacity of the altered
		or relocated portion of the water course shall not be
		diminished. Prior to issuance of a floodplain
		development permit, the applicant must submit a
		description of the extent to which any water course will
		be altered or relocated as a result of the proposed
		development and submit certification by a registered
		professional engineer that the bankfull flood carrying
	1	professional engineer that the bankfull flood carrying
		conscience the water compared will not be diminished
	/L\	capacity of the water course will not be diminished.
	(b)	Adjacent communities, the U.S. Army Corps of
	(b)	Adjacent eommunities, the U.S. Army Corps of Engineers, Oregon Department of State Lands, and
	(b)	Adjacent eommunities, the U.S. Army Corps of Engineers, Oregon Department of State Lands, and Oregon Department of Land Conservation and
	(b)	Adjacent communities, the U.S. Army Corps of Engineers, Oregon Department of State Lands, and Oregon Department of Land Conservation and Development must be notified prior to any alteration or
	(b)	Adjacent communities, the U.S. Army Corps of Engineers, Oregon Department of State Lands, and Oregon Department of Land Conservation and Development must be notified prior to any alteration or relocation of a water source. Evidence of notification
	(b)	Adjacent communities, the U.S. Army Corps of Engineers, Oregon Department of State Lands, and Oregon Department of Land Conservation and Development must be notified prior to any alteration or relocation of a water source. Evidence of notification must be submitted to the Floodplain Administrator and
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		Adjacent communities, the U.S. Army Corps of Engineers, Oregon Department of State Lands, and Oregon Department of Land Conservation and Development must be notified prior to any alteration or relocation of a water source. Evidence of notification must be submitted to the Floodplain Administrator and to the Federal Emergency Management Agency. The applicant shall be responsible for providing the

(10) Emergency Permits. The Floodplain Administrator 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.

- (b) 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 Floodplain Administrator shall condition emergency permits to protect and conserve the waters of this County.

(11) 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 reconstruction, 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 regulatory floodway if any increase in flood levels during the base flood discharge would result.
- (b) Special Floodway Variances. For any existing lot or parcel within the regulatory floodway that can be demonstrated to have been rendered not developable for the primary use allowed in the base zone by application of LC 16.244(9)(d)(i), a variance to waive the applicable development restrictions may be applied for. Variances will be processed following the procedures outlined in LC 16.256 with additional findings of compliance addressing the following criteria:
- (i) It shall be the burden of the property owner to demonstrate how application of LC 16.244(9)(d)(i) would render the lot or parcel undevelopable for a dwelling or for the primary use allowed in the base zone.
- (ii) It can be demonstrated that the lot or parcel was lawfully created prior to the date that LC 16.244(9)(d)(i) became effective and that the inability to develop the lot or parcel is not the result of a property line adjustment that occurred subsequent to the date LC 16.244(9)(d)(i) took effect.
- (iii) Due to topography, parcel size or configuration, options for development outside of the floodway are physically impossible.
- (c) Any development permitted pursuant to LC 16.244 (11)(b) shall meet the criteria of LC 16.244(9)(d)(v) and shall also meet the following standards:
- (i) All structures shall be located at the maximum distance away from the flood source and at the highest elevation above the flood source as practicable to mitigate the risk of flood damage.
- (ii) Any approved development shall be the minimum size and scale necessary to alleviate the difficulty and render the property developable.
- (iii) Any habitable structures permitted pursuant to LC 16.244(11)(b) must be constructed on a pier and beam supported foundation in order to maximize conveyance of floodwaters.
- (d) 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)

BEFORE THE BOARD OF COUNTY COMMISSIONERS, LANE COUNTY, OREGON

ORDINANCE NO. 9-10

IN THE MATTER OF AMENDING CHAPTER 16 OF LANE CODE TO CODIFY DRINKING WATER PROTECTION OVERLAY ZONE REGULATIONS. (LC 16.012 and LC 16.298) (Department File No. PA 10-5659)

The Board of County Commissioners of Lane County ordains as follows

Chapter 16 of Lane Code are hereby amended by removing, substituting and adding new sections as follows:

REMOVE THESE SECTIONS	INSERT THESE SECTIONS
16.012 located on pages 16-5 through 16-6 (a total of pages)	16.012 located on pages 16-5 through 16-6 (a total of 2 pages)
NONE	16.298 located on pages 16-674 through 16-681 (a total of 8 pages)
Said sections are attached hereto and these substitutions and additions is to codify (LC 16.012 and LC 16.298)	d incorporated herein by reference. The purpose of drinking water protection overlay zone regulations.
ENACTED this day of	2010.
	Chair, Lane County Board of Commissioners
	Recording Secretary for this Meeting of the Board
	APPROVED AS TO FORM
	DateLane County
	OFFICE OF LEGAL COUNSEL

16.007 Compliance With Rural Comprehensive Plan.

In the event of any conflict between any provision of this chapter and provisions of the Rural Comprehensive Plan of Lane County, or duly adopted portions, elements or amendments of such Plan, the more restrictive Provisions shall prevail. (Revised by Ordinance No. 7-87, Effective 6.17.87)

16.008 Interpretation.

When in the administration of this chapter there is doubt regarding the intent of the chapter or the suitability of uses not specified, the Director shall request an interpretation of the provision by the Board of County Commissioners. The Board shall issue an interpretation to resolve the doubt, but such interpretation shall not have the effect of amending the provisions of this chapter. Any interpretation of the chapter shall be deemed an administrative action and shall be based on the following considerations:

- (1) The Lane County Comprehensive Plan.
- (2) The purpose and intent of the chapter as applied to the particular section in question.
- (3) The opinion of the County Counsel. Copies of such interpretations shall be indexed and kept on file in the Department and may be reviewed by the public upon request. (Revised by Ordinance No. 7-87, Effective 6.17.87)

16.009 Restrictiveness.

Where the conditions imposed by a provision of this chapter overlap, the provisions which are more restrictive shall govern. (Revised by Ordinance No. 7-87, Effective 6.17.87)

16.010 Severability.

If any section, paragraph, subsection, clause, sentence or provision of this chapter shall be adjudged by any court of competent jurisdiction to be unconstitutional or invalid, such judgment shall not affect, impair, invalidate or nullify the remainder of this chapter, and the effect thereof shall be confined to the section, paragraph, subsection, clause, sentence or provision immediately involved in the controversy in which such judgment or decree shall be rendered, it being the intent of the governing body to enact the remainder of this chapter notwithstanding the parts so declared unconstitutional or invalid. Further, should any section, paragraph, subsection, clause, sentence or provision of this chapter be judicially declared unreasonable or inapplicable to a particular premises or to a particular use at any particular location, such declaration or judgment shall not affect, impair, invalidate or nullify such section, paragraph, subsection, clause, sentence or provision as to any other premises or use. (Revised by Ordinance No. 7-87. Effective 6.17.87)

16.011 Introductory Provisions.

In order to achieve the purposes outlined in LC 16.003, and to assure that the development and use of land in Lane County conforms to the Rural Comprehensive Plan, zone classifications have been established for all unincorporated areas outside of adopted urban growth boundaries and within Lane County. These zones specify regulations for the use of land and property development standards, and use applied by boundaries indicated on the Lane County Rural Comprehensive Plan Zoning Maps. (Revised by Ordinance No. 7-87, Effective 6.17.87)

16.012 Zone Classifications.

For the purpose of this chapter of Lane Code, the following zones are hereby established:

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Zone Classification	Abbreviation	Section No.
Nonimpacted Forest Lands	F-1, RCP	16.210
Impacted Forest Lands	F-2, RCP	16.211
Exclusive Farm Use	E-RCP	16.212
Natural Resource	NR-RCP	16.213
Marginal Lands	ML RCP	16.214
Park and Recreation	PR-RCP	16.215
Quarry and Mining Operations	QM-RCP	16.216
Sand, Gravel and Rock Products	SG-RCP	16.217
Sand, Gravel and Rock Products	SG-CP-RCP	16.218
Combining Processing		
Public Facility	PF-RCP	16.219
Limited Commercial	C-1, RCP	16.220
Neighborhood Commercial	C-2, RCP	16.221
Commercial	C-3, RCP	16.222
Rural Commercial	C-R, RCP	16.223
Limited Industrial	M-1, RCP	16.224
Light Industrial	M-2, RCP	16.225
Heavy Industrial	M-3, RCP	16.226
Inmate Work Camp	IWC, RCP	16.227
Suburban Residential	RA-RCP	16.229
Garden Apartment Residential	RG-RCP	16.230
Rural Residential	RR-RCP	16.231
Destination Resort	DR-RCP	16.232
Historic Structures or Sites Combining	/H-RCP	16.233
Natural Estuary	/NE-RCP	16.234
Conservation Estuary	/CE-RCP	16.235
Development Estuary	DE-RCP	16,236
Significant Natural Shorelands Combining	/SN-RCP	16.237
Prime Wildlife Shorelands Combining	/PW-RCP	16.238
Natural Resources Conservation Combining	/NRC-RCP	16.239
Residential Development Shorelands	/RD-RCP	16.240
Combining		
Shorelands Mixed Development Combining	/MD-RCP	16.241
Dredge Material/Mitigation Site Combining	/DMS-RCP	16.242
Beaches and Dunes Combining	/BD-RCP	16.243
Floodplain Combining	/FP-RCP	16.244
Commercial Airport Safety District	/CAS-RCP	16.245
Airport Safety District	/AS-RCP	16.246
Airport Operation	AO-RCP	16.247
Clear Lake Watershed Protection	CLWP-RCP	16.258
Rural Residential	RR, RCP	16.290
Rural Commercial	RC, RLP	16.291
Rural Industrial	RI, RCP	16.292
Rural Public Facility	RPF, RCP	16.294
Rural Park and Recreation	RPR, RCP	16.295
Private Use Airport Overlay	/PUAO-RCP	16.296
Drinking Water Protection Overlay	/DWP-RCP	16.298
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(Revised by Ordinance No. 7-87, Effective 6.17.87; 17-87, 12.25.87; 12-90, 10.11.90; 11-91A, 8.30.91; 6-98, 12.2.98; 6-02, 5.16.02; 15-07, 2.1.08)

16.013 Location of Zones.

The boundaries of the zones indicated on the Lane County Zoning Maps are hereby adopted by reference. (Revised by Ordinance No. 7-87, Effective 6.17.87)

At left margin indicates changes **Bold** indicates material being added

Strikethrough indicates material being deleted

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16.007 Lane Code 16.012

16.007 Compliance With Rural Comprehensive Plan.

In the event of any conflict between any provision of this chapter and provisions of the Rural Comprehensive Plan of Lane County, or duly adopted portions, elements or amendments of such Plan, the more restrictive Provisions shall prevail. (Revised by Ordinance No. 7-87, Effective 6.17.87)

16.008 Interpretation.

When in the administration of this chapter there is doubt regarding the intent of the chapter or the suitability of uses not specified, the Director shall request an interpretation of the provision by the Board of County Commissioners. The Board shall issue an interpretation to resolve the doubt, but such interpretation shall not have the effect of amending the provisions of this chapter. Any interpretation of the chapter shall be deemed an administrative action and shall be based on the following considerations:

- (1) The Lane County Comprchensive Plan.
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- (3) The opinion of the County Counsel. Copies of such interpretations shall be indexed and kept on file in the Department and may be reviewed by the public upon request. (Revised by Ordinance No. 7-87, Effective 6.17.87)

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If any section, paragraph, subsection, clause, sentence or provision of this chapter shall be adjudged by any court of competent jurisdiction to be unconstitutional or invalid, such judgment shall not affect, impair, invalidate or nullify the remainder of this chapter, and the effect thereof shall be confined to the section, paragraph, subsection, clause, sentence or provision immediately involved in the controversy in which such judgment or decree shall be rendered, it being the intent of the governing body to enact the remainder of this chapter notwithstanding the parts so declared unconstitutional or invalid. Further, should any section, paragraph, subsection, clause, sentence or provision of this chapter be judicially declared unreasonable or inapplicable to a particular premises or to a particular use at any particular location, such declaration or judgment shall not affect, impair, invalidate or nullify such section, paragraph, subsection, clause, sentence or provision as to any other premises or use. (Revised by Ordinance No. 7-87, Effective 6.17.87)

16.011 Introductory Provisions.

In order to achieve the purposes outlined in LC 16.003, and to assure that the development and use of land in Lane County conforms to the Rural Comprehensive Plan, zone classifications have been established for all unincorporated areas outside of adopted urban growth boundaries and within Lane County. These zones specify regulations for the use of land and property development standards, and use applied by boundaries indicated on the Lane County Rural Comprehensive Plan Zoning Maps. (Revised by Ordinance No. 7-87, Effective 6.17.87)

At left margin indicates changes **Bold** indicates material being added **Strikethrough** indicates material being deleted

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16.012 Lane Code 16.012

16.012 Zone Classifications.

For the purpose of this chapter of Lane Code, the following zones are hereby established:

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16.013 Lane Code 16.013

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Zone Classification	Abbreviation	Section No.
Nonimpacted Forest Lands	F-1, RCP	16.210
Impacted Forest Lands	F-2, RCP	16.211
Exclusive Farm Use	E-RCP	16.212
Natural Resource	NR-RCP	16.213
Marginal Lands	ML RCP	16.214
Park and Recreation	PR-RCP	16.215
Quarry and Mining Operations	QM-RCP	16.216
Sand, Gravel and Rock Products	SG-RCP	16.217
Sand, Gravel and Rock Products Combining Processing	SG-CP-RCP	16.218
Public Facility	PF-RCP	16.219
Limited Commercial	C-1, RCP	16.220
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Inmate Work Camp	IWC, RCP	16.227
Suburban Residential	RA-RCP	16.227
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Rural Residential		16.231
Destination Resort	RR-RCP DR-RCP	16.232
Historic Structures or Sites Combining	/H-RCP	16.233
· · · · · · · · · · · · · · · · · · ·	/NE-RCP	16.234
Natural Estuary Conservation Estuary	/CE-RCP	16.235
Development Estuary	DE-RCP	16.235
	/SN-RCP	
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Residential Development Shorelands Combining	/KD*KCF	10.240
Shorelands Mixed Development Combining	/MD-RCP	16.241
Dredge Material/Mitigation Site Combining	/DMS-RCP	16.242
Beaches and Dunes Combining	/BD-RCP	16.243
Floodplain Combining	/FP-RCP	16.244
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Rural Park and Recreation	RPR, RCP	16.295
Private Use Airport Overlay	/PUAO-RCP	16.296
Drinking Water Protection Overlay	/DWP-RCP	16.298

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16.013 Lane Code 16.013

(Revised by Ordinance No. 7-87, Effective 6.17.87; 17-87, 12.25.87; 12-90, 10.11.90; 11-91A, 8.30.91; 6-98, 12.2.98; 6-02, 5.16.02; 15-07, 2.1.08)

16.013 Location of Zones.

The boundaries of the zones indicated on the Lane County Zoning Maps are hereby adopted by reference. (Revised by Ordinance No. 7-87, Effective 6.17.87)

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DRINKING WATER PROTECTION OVERLAY ZONE (/DWP-RCP) RURAL COMPREHENSIVE PLAN

16.298 Drinking Water Protection Overlay Zone (/DWP-RCP).

- (1) General. The regulations that apply to property subject to this Drinking Water Protection (DWP) Overlay Zone are in addition to those of the underlying zoning districts and regulations of Lane Code. Where the regulations and permitted uses of an underlying zone conflict with those of this overlay zone, the more restrictive standards shall apply.
- (2) Purpose. It is the purpose of this overlay zoning to promote the public health, safety, and general welfare of the residents of Lane County by minimizing public and private losses due to the contamination of drinking water sources. The specific goals of LC 16.298 are to:
- (a) Protect surface and ground waters that provide drinking water to Lane County residents.
 - (b) Protect human life and health.
- (c) Ensure that the public is provided with sustainable sources of safe potable water.
- (d) Minimize expenditure of public money for pollution remediation projects.
 - (e) Minimize interruptions to business and commerce.
- (3) <u>Definitions.</u> Unless specifically defined in LC 16.298(3), words or phrases used in LC 16.298 shall have the meanings provided in Lane Code 16.090.

<u>Dense Non-Aqueous Phase Liquid (DNAPL).</u> A dense non-aqueous phase liquid is an organic liquid that is denser than water and does not dissolve or mix easily in water (it is immiscible). In the presence of water it forms a separate phase from the water.

<u>Development.</u> For the purposes of LC 16.298, development shall mean the carrying out of any construction, reconstruction or alteration of a structure, installation of a new septic system or grading of land.

<u>Hazardous Materials.</u> 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 section 101(14) of the federal Comprehensive Environmental Response, Compensation and Liability Act, P.L. 96-510, as amended.
 - (d) Oil as defined in ORS 465.200(19).
- (e) Any substance that meets the criteria established pursuant to ORS 465,400.

Ordinary High Water Level. The high water level is defined as that high level of a river, stream, lake or reservoir, which is attained during mean annual flood. It does not include levels attained during exceptional or catastrophic floods. It is often identifiable by physical characteristics such as a clear natural line impressed on the bank, shelving, changes in character in the soil, destruction or absence of vegetation not adapted for life in saturated soils or the presence of flotsam and debris. In the absence of identifying physical characteristics, ordinary high water may be determined by step backwater analysis using a two-year frequency flood as determined by the US Army Corps of Engineers.

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<u>Primary Containment.</u> A tank, pit, container or vessel of first containment of liquid or chemical.

Removal of Vegetation. The act of removing or fact of being removed by a person: i.e., to cut, thin or trim vegetation or to chemically treat vegetation which results in the loss of growth or health or the death of vegetation; to mechanically or manually disrupt or dislodge the root structure of vegetation resulting in loss of growth or health or causing the death of vegetation.

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

<u>Time-of-Travel Zone.</u> A mapped area that geographically delineates the amount of time it takes groundwater to flow within an aquifer to a given well.

- (4) <u>Designation of Drinking Water Source Areas.</u> This Drinking Water Protection Overlay Zone is comprised of two separate regulatory elements, which contain different standards and requirements related to the protection of either surface water source areas or groundwater source areas. The location of the protected surface and groundwater source areas are generally depicted on the Official Drinking Water Protection Overlay Zone Map for Lane County and are further described below:
- (a) Surface Water Source Protection Areas: Include the areas adjacent to rivers, streams, lakes or reservoirs that serve as a source of public drinking water, or which are tributaries to a source of public drinking water. These areas extend inland 200 feet, measured perpendicularly, from the ordinary high water level of the source of public drinking water and from any tributary to a source of public drinking water. The Official Drinking Water Protection Overlay Zone Map identifies the surface waters to which these protection areas apply but does not depict the precise location of the ordinary high water level. Where development or vegetation removal is proposed near a surface water protection area, Lane County may require that a site visit be eonducted by staff to delineate and monument the location of the ordinary high water level and the boundary of the surface water protection area on a property by property basis.
- (b) Groundwater Source Protection Areas: Include the surface and subsurface area surrounding any water well, spring, or well field supplying a public water system through which contaminants have a potential to move toward and reach that water well, spring, or well field. Groundwater source areas include two separate protection zones:

Zone A: Include areas located within a time-of-travel zones of less than two (<2) years.

Zone B: Include areas within a time of travel zone between 2 and 20 years.

The locations of Zone A and Zone B for each wellhead are shown on the Official Drinking Water Protection Overlay Zone Map for Lane County. Where the scale of the Official Drinking Water Protection Overlay Zone Map is insufficient to determine the precise boundary locations of Zone A or Zone B in relation to parcel boundaries, the digital ground water source protection area data contained in the Lane County Geographic Information System may be used in conjunction with the county maintained digital parcel data and considered an authoritative source.

(5) Request for Groundwater Source Protection Area Boundary Rezonings. A property owner may request that the boundaries of the mapped

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Groundwater Source Protection Areas (Zone A and/or Zone B) be modified if those boundaries are believed to be incorrectly mapped. Such modifications would constitute a rezoning of the property and shall;

- (a) Be processed in accordance with Lane Code 16.252.
- (b) Be accompanied by a letter and recertified source water assessment report from the Oregon Department of Human Services Drinking Water Program (DHS), which clearly indicates that the boundaries of the source water area in question have been modified and officially recertified by DHS under the Administrative Rules that apply to Oregon's EPA-approved Drinking Water Protection Program.
- (6) <u>Surface Water Protection Requirements.</u> The following standards shall apply within Surface Water Protections Areas:
- (a) New development is prohibited except for the following uses provided alteration and disturbances are kept to a minimum and native vegetation is used to replant disturbed areas after construction:
- (i) Development that is appurtenant to the production, supply, distribution, treatment, or storage of water by a public water supplier.
 - (ii) Public roads, main-line utilities and trails.
- (iii) Private roads and driveways necessary to access buildable portions of a parcel where no alternative location is feasible.
- (iv) Culverts, ditches and other stormwater management improvements carried out as a component of Lane County's stormwater management program.
- (v) Wells and irrigation pumps, which may be housed in structures no larger than 25 square feet.
- (vi) Replacement of existing structures provided a replacement location outside of the Surface Water Protections Area does not exist on the lot or parcel and the replaced structure is set back as far away as possible from the drinking water source or tributary to the drinking water source based on a consideration of site characteristics, including but not limited to topography, road and property line setback. Applications for replacement of existing structures within Surface Water Protection Areas shall be reviewed as ministerial land use decisions.
 - (vii) Water dependent uses on publically owned land.
- (vili) Development on public land carried out as part of an approved parks and open space plan.
- (ix) Additions or alterations of existing lawfully established structures, including decks, stairs and landings attached to the structure, which do not cumulatively expand the footprint of the structure beyond 25% of its size on the datc LC 16.298 becomes effective.
- (x) Fish passage channels, culverts and other similar structural ecological enhancement improvements conducted by a watershed council or soil and water conservation district (SWCD), or conducted by a land trust or private land owner working in consultation with a watershed council or SWCD.
- (b) Vegetation removal within Surface Water Protection Areas is prohibited except for the following uses and activities:
- (i) Commercial forest practices regulated by the Oregon Forest Practices Act.

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- (ii) Removal of dead or diseased vegetation that poses a safety or health hazard, excluding removal of root wads, provided a certified arborist or licensed forester provides a statement to the Land Management Division documenting the need for such removals.
- (iii) Removal of vegetation necessary for the maintenance or placement of permitted structural shoreline stabilization.
- (iv) Normal and accepted farming practices other than buildings or structures occurring on land zoned for exclusive farm use.
- (v) Ecological enhancement projects replanted with native vegetation and conducted by a watershed council or soil and water conservation district (SWCD), or conducted by a land trust or private land owner working in consultation with a watershed council or SWCD.
- (vi) Vegetation removal necessary to carry out development as permitted pursuant to LC 16.298(6)(a)
- (vii) Maintenance of existing primary fuel breaks required by Lane Code. New fuel breaks are not permitted within Surface Water Protections Areas.
- (viii) Right-of-way vegetation management conducted in conformance with LC 15.510.
- (c) In addition to the development and vegetation removal standards of LC 16.298(6)(a) and (b), all new development within a Surface Water Protections Area shall also be subject to the Ground Water Protection requirements of LC 16.298(7)(a) and (b) for Zone A.
- (d) Variances. For any existing lot or parcel that can be demonstrated to have been rendered not developable for a dwelling or for the primary use allowed in the base zone, by application of the LC 16.298(a) through (c), a variance to waive the applicable development restrictions may be applied for. Variances will be processed following the procedures outlined in LC 16.256(1)(a) and (b) and meeting the criteria of LC 16.256(2)(a) and (d) through (f) with additional findings of compliance addressing all of the following criteria:
- (i) It can be demonstrated that the lot or parcel has been rendered undevelopable for a dwelling or for the primary use allowed in the base zone by the application of the LC 16.298(a) through (c). It shall be the burden of the property owner to demonstrate how application of LC 16.298(a) through (c) has rendered the lot or parcel undevelopable.
- (ii) It can be demonstrated that the lot or parcel was lawfully created prior to the effective date of LC 16.298.
- (iii) Approval of development under this provision must meet the following standards:
- (aa) All development shall be located to the greatest degree possible outside of surface water protection areas.
- (bb) The request shall be the minimum necessary to render the property developable.
- (cc) Due to topography, parcel size or configuration, options for development outside of the surface water protection area are physically impossible.
- (dd) The variance is not the result of a self-created hardship. After the effective date of LC 16.298, the reconfiguration of a lot or parcel as a result of a lot or property line adjustment, in whole or part within the setback

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area, shall be determined to be a self-created hardship by the creator and shall extend to subsequent property owners.

(ee) Vegetation disturbances shall be minimized and native vegetation shall be used to replant disturbed areas after construction.

(7) Ground Water Protection Requirements.

- (a) Zone A Prohibited Uses. The following new uses shall be prohibited within Zone A of the DWP Overlay Zone:
- (i) Storage, use, or production of hazardous materials, except as provided in LC 16.298 (7)(d).
- (ii) Fueling facilities and automobile service stations, except as provided in LC 16,298 (7)(d).
- (iii) Injection wells/dry wells/sumps except drywells for roof drainage.
- (iv) Underground hazardous material storage facilities except those with spill, overfill, and corrosion protections in place.
 - (v) Disposal of hazardous materials.
- (vi) Treatment of hazardous material, except remediation programs authorized by a government agency.
 - (vii) Disposal of septic sludge.
- (viii) Automobile wrecking yards or activities, commercial or otherwise, that result in the accumulation of four or more non-operating vehicles.
- (ix) Outside storage of eight or more nonfunctioning appliances.
- (b) Any increases or alterations of non-conforming uses within Zone A as permitted under LC 16.251, must meet the requirements of LC 16.298(8). Non-conforming uses are uses otherwise prohibited by LC 16.298(7)(a)(i) that were in lawful existence on the date that LC 16.298 took effect.
- (c) Zone B Requirements. New uses prohibited under LC 16.298(7)(a)(i) and LC 16.298(7)(a)(ii) may be conditionally permitted within Zone B provided the requirements of LC 16.298(8) are met. New uses identified in LC 16.298(7)(a)(iii) through (ix) are also prohibited within Zone B.
- (d) Exemptions. The provisions of LC 16.298 do not exempt any material or use from requirements under the Oregon Fire Code. Except as otherwise provided by this section, the following activities and/or materials are exempt from LC 16.298(7):
- materials that do not present a risk to the drinking water source, as determined and listed by the Planning Director. These materials may still need to be included on a Hazardous Material Inventory Statement as required by Fire Code. A Hazardous Material Exemption Request may be submitted to the Planning Director for hazardous materials that can be demonstrated to pose no threat to the drinking 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 a ministerial review by the Planning Director. The Planning Director shall notify and consult with the Department of Environmental Quality, the Oregon Department of Human Services Drinking Water Program, the applicable water utility or water service supplier in the area and the Lane Pollution

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Prevention Coalition (P2C) prior to making a hazardous material exemption determination.

- (ii) 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 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 Hazardous Material Exemption Request shall be reviewed by the Planning Director in the manner described in LC 16.298(7)(d)(i).
- (iii) Hazardous materials in fuel tanks and fluid reservoirs attached to a private or commercial motor vehicle and used directly in the operation of that vehicle.
- (iv) Hazardous materials in fuel tanks and fluid rescryoirs attached to machinery, including but not limited to fuel, engine oil and coolant.
 - (v) Fuel oil used in existing heating systems.
- (vi) Emergency use, storage and handling of hazardous materials by governmental organizations or non-governmental disaster relief organizations in the public interest.
- (vii) Hazardous materials used and stored specifically for water treatment processes of public and private water systems
- (viii) Hazardous materials contained in properly operating sealed units (transformers, refrigeration units, etc.) that are not opened as part of routine use.
 - (ix) Natural gas distribution lines.
- (x) Any commonly used office supply, such as toner or cleaning supplies, where supplies are purchased off-site for use onsite.
- (xi) 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.
- (xii) Pesticide use and storage specifically addressed by state preemption of local pesticide regulation under ORS 634.055 through 634.065.
- (xiii) Hazardous material use in association with Forest activities conducted under the Forest Practices Act.
- (xiv) Aggregate quantitics equal to or less than 110 gallons of non-exempt hazardous materials, which are not dense non-aqueous phase liquids (DNAPLs).
- (xv) Aggregate quantities greater than 110 gallons of non-exempt hazardous materials, for residential uses, rural home businesses or home occupations provided:
- (aa) The hazardous materiais are not dense non-aqueous phase liquids (DNAPLs).
- (bb) The applicant submits a signed statement to Lane County asserting that all hazardous materials stored on site in excess of 110 gallons will be kept in a primary containment vessel and further protected within a secondary containment vessel and that the secondary containment vessel will be monitored regularly for leaks or other failures.

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- (8) Hazardous Material Special Use Permit Director Review. Increases or alterations of non-conforming uses pursuant to LC 16.298(7)(b) and new uses pursuant to 16.298(7)(c) may be conditionally permitted provided a land use application is submitted pursuant to LC 14.050, processed according to LC 14.100, and approved by the Planning Director upon determination that the criteria of 16.298(8)(a)(i) through (viii) are met. The Planning Director shall condition any such approvals to ensure that the hazardous material management strategies identified LC 16.289(9) are carried out. Prior to issuing a hazardous material special use permit decision the Planning director shall notify and consult with the Department of Environmental Quality, the Oregon Department of Human Services Drinking Water Program and the applicable water utility or water service supplier in the area.
- (a) A hazardous material special use permit application must contain:
- (i) A hazardous material inventory statement and, upon request from the Planning Director, a Material Safety Data Sheet (MSDS) for any hazardous materials to be used, stored or produced on site. Hazardous material weights shall be converted to volume measurement for purposes of determining amounts 10 pounds shall be considered equal to 1 gallon.
- (ii) A detailed description of the activities conducted at the facility that involve the storage, handling, treatment, use or production of hazardous materials.
- (iii) A description of the primary and secondary containment devices proposed.
- (iv) Spill reporting procedures, including a list of affected agencies and affected public water system(s) to be contacted in the event of a spill with current contact information for each agency.
- (v) A description of procedures for inspection and maintenance of containment devices and emergency equipment; and
- (vi) A description of procedures for disposition of unused hazardous materials or hazardous material waste products including the type of transport and proposed route.
- (vii) A list of the chemicals to be monitored through the analysis of groundwater samples and a monitoring schedule if ground water monitoring is anticipated to be required under state or local government water quality permit, cleanup agreements, or other requirements.
- (viii) The location of all operating, unused and abandoned wells on the property with documentation that all abandoned wells have been properly capped or sealed.
- (b) Hazardous material special use permits shall expire five years after the date of issuance but may be renewed indefinitely. Renewal applications shall include updated information required pursuant to LC 16.298(8)(a)(i) through (viii).
- (9) <u>Hazardous Material Management Standards.</u> Uses permitted pursuant to LC 16.298(8) shall meet the following standards:
- (a) Storage, handling, treatment, use, production or otherwise keeping on premises hazardous materials shall be in compliance with containment and safety standards set by the Oregon Fire Code.

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- (b) All hazardous materials that pose a risk to a surface or ground water source shall be stored in areas with approved secondary containment in place (Oregon Fire Code Section 2704,2).
- (c) Requirements found in the Oregon Fire Code Section 2704.2.2.5 for a monitoring program 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 a surface or ground water source.
- (d) All spill reporting procedures and contact information described in LC 16.298(8)(iv) shall be updated annually and kept on premises.
- (10) Agency Review. Decisions made by Lane County under LC 16.298 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.
- (11) Warning and Disclaimer of Liability. The degree of drinking water protection required by LC 16.298 is based on scientific and engineering considerations. These considerations include drinking water source area assessments certified by Oregon Department of Human Services, under the Oregon Administrative Rules that apply to Oregon's EPA-approved Drinking Water Protection Program, which inherently carry associated uncertainties. Any conclusions based on the exact boundaries of the surface or groundwater source areas shall therefore be considered estimates. Under no conditions should LC 16.298 be construed to guarantee the purity of the surface or ground waters or guarantee the prevention of contamination. Therefore, LC 16.298 shall not create liability on the part of the Lane County, or any Lane County personnel, for any contamination that may result from reliance on LC 16.298 or any administrative decision made under LC 16.298.

DRINKING WATER PROTECTION OVERLAY ZONE (/DWP-RCP) RURAL COMPREHENSIVE PLAN

16.298 Drinking Water Protection Overlay Zone (/DWP-RCP).

- (1) General. The regulations that apply to property subject to this Drinking Water Protection (DWP) Overlay Zone are in addition to those of the underlying zoning districts and regulations of Lane Code. Where the regulations and permitted uses of an underlying zone conflict with those of this overlay zone, the more restrictive standards shall apply.
- (2) <u>Purpose.</u> It is the purpose of this overlay toning to promote the public health, safety, and general welfare of the residents of Lane County by minimizing public and private losses due to the contamination of drinking water sources. The specific goals of LC 16.298 are to:
- (a) Protect surface and ground waters that provide drinking water to Lane County residents.
 - (b) Protect human life and health.
- (c) Ensure that the public is provided with sustainable sources of safe potable water.
- (d) Minimize expenditure of public money for pollution remediation projects.
 - (e) Minimize interruptions to business and commerce.
- (3) <u>Definitions.</u> Unless specifically defined in LC 16.298(3), words or phrases used in LC 16.298 shall have the meanings provided in Lane Code 16.090.

Dense Non-Aqueous Phase Liquid (DNAPL). A dense non-aqueous phase liquid is an organic liquid that is denser than water and does not dissolve or mix easily in water (it is immiscible). In the presence of water it forms a separate phase from the water.

<u>Development.</u> For the purposes of LC 16.298, development shall mean the carrying out of any construction, reconstruction or alteration of a structure, installation of a new septic system or grading of land.

<u>Hazardous Materials.</u> 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 section 101(14) of the federal Comprehensive Environmental Response, Compensation and Liability Act, P.L. 96-510, as amended.
 - (d) Oil as defined in ORS 465.200(19).
- (e) Any substance that meets the criteria established pursuant to ORS 465.400.

Ordinary High Water Level. The high water level is defined as that high level of a river, stream, lake or reservoir, which is attained during mean annual flood. It does not include levels attained during exceptional or catastrophic floods. It is often identifiable by physical characteristics such as a clear natural line impressed on the bank, shelving, changes in character in the soil, destruction or absence of vegetation not adapted for life in saturated soils or the presence of flotsam and debris. In the absence of identifying physical characteristics, ordinary high water may be determined by step backwater analysis using a two-year frequency flood as determined by the US Army Corps of Engineers.

<u>Primary Containment.</u> A tank, pit, container or vessel of first containment of liquid or chemical.

Removal of Vegetation. The act of removing or fact of being removed by a person: i.e., to cut, thin or trim vegetation or to chemically treat vegetation which results in the loss of growth or health or the death of vegetation; to mechanically or manually disrupt or dislodge the root structure of vegetation resulting in loss of growth or health or causing the death of vegetation.

<u>Secondary Containment.</u> A second tank, catchment pit or vessel that limits and contains liquid or chemical leaking or leaching from a primary containment area; monitoring and recovery are required.

<u>Time-of-Travel Zone.</u> A mapped area that geographically delineates the amount of time it takes groundwater to flow within an aquifer to a given well.

- (4) <u>Designation of Drinking Water Source Areas.</u> This Drinking Water Protection Overlay Zone is comprised of two separate regulatory elements, which contain different standards and requirements related to the protection of either surface water source areas or groundwater source areas. The location of the protected surface and groundwater source areas are generally depicted on the Official Drinking Water Protection Overlay Zone Map for Lane County and are further described below:
- (a) Surface Water Source Protection Areas: Include the areas adjacent to rivers, streams, lakes or reservoirs that serve as a source of public drinking water, or which are tributaries to a source of public drinking water. These areas extend inland 200 feet, measured perpendicularly, from the ordinary high water level of the source of public drinking water and from any tributary to a source of public drinking water. The Official Drinking Water Protection Overlay Zone Map identifies the surface waters to which these protection areas apply but does not depict the precise location of the ordinary high water level. Where development or vegetation removal is proposed near a surface water protection area, Lane County may require that a site visit be conducted by staff to delineate and monument the location of the ordinary high water level and the boundary of the surface water protection area on a property by property basis.
- (b) Groundwater Source Protection Areas: Include the surface and subsurface area surrounding any water well, spring, or well field supplying a public water system through which contaminants have a potential to move toward and reach that water well, spring, or well field. Groundwater source areas include two separate protection zones:

Zone A: Include areas located within a time-of-travel zones of less than two (<2) years.

Zone B: Include areas within a time of travel zone between 2 and 20 years.

The locations of Zone A and Zone B for each wellhead are shown on the Official Drinking Water Protection Overlay Zone Map for Lane County. Where the scale of the Official Drinking Water Protection Overlay Zone Map is insufficient to determine the precise boundary locations of Zone A or Zone B in relation to parcel boundaries, the digital ground water source protection area data contained in the Lanc County Geographic Information System may be used in conjunction with the county maintained digital parcel data and considered an authoritative source.

- (5) Request for Groundwater Source Protection Area Boundary Rezonings. A property owner may request that the boundaries of the mapped Groundwater Source Protection Areas (Zone A and/or Zone B) be modified if those boundaries are believed to be incorrectly mapped. Such modifications would constitute a rezoning of the property and shall;
 - (a) Be processed in accordance with Lane Code 16.252.
- (b) Be accompanied by a letter and recertified source water assessment report from the Oregon Department of Human Services Drinking Water

Program (DHS), which clearly indicates that the boundaries of the source water area in question have been modified and officially recertified by DHS under the Administrative Rules that apply to Oregon's EPA-approved Drinking Water Protection Program.

- (6) <u>Surface Water Protection Requirements.</u> The following standards shall apply within Surface Water Protections Areas:
- (a) New development is prohibited except for the following uses provided alteration and disturbances are kept to a minimum and native vegetation is used to replant disturbed areas after construction:
- (i) Development that is appurtenant to the production, supply, distribution, treatment, or storage of water by a public water supplier.
 - (ii) Public roads, main-line utilities and trails.
- (iii) Private roads and driveways necessary to access buildable portions of a parcel where no alternative location is feasible.
- (iv) Culverts, ditches and other stormwater management improvements carried out as a component of Lane County's stormwater management program.
- (v) Wells and irrigation pumps, which may be housed in structures no larger than 25 square feet.
- (vi) Replacement of existing structures provided a replacement location outside of the Surface Water Protections Area does not exist on the lot or parcel and the replaced structure is set back as far away as possible from the drinking water source or tributary to the drinking water source based on a consideration of site characteristics, including but not limited to topography, road and property line setback. Applications for replacement of existing structures within Surface Water Protection Areas shall be reviewed as ministerial land use decisions.
 - (vii) Water dependent uses on publically owned land.
- (viii) Development on public land carried out as part of an approved parks and open space plan.
- (ix) Additions or alterations of existing lawfully established structures, including decks, stairs and landings attached to the structure, which do not cumulatively expand the footprint of the structure beyond 25% of its size on the date LC 16.298 becomes effective.
- (x) Fish passage channels, culverts and other similar structural ecological enhancement improvements conducted by a watershed council or soil and water conservation district (SWCD), or conducted by a land trust or private land owner working in consultation with a watershed council or SWCD.
- (b) V Vegetation removal within Surface Water Protection Areas is prohibited except for the following uses and activities:
 - (i) Commercial forest practices regulated by the Oregon

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New Forest Practices Act.

- (ii) Removal of dead or diseased vegetation that poses a safety or health liazard, excluding removal of root wads, provided a certified arborist or licensed forester provides a statement to the Land Management Division documenting the need for such removals.
- (iii) Removal of vegetation necessary for the maintenance or placement of permitted structural shoreline stabilization.
- (iv) Normal and accepted farming practices other than buildings or structures occurring on land zoned for exclusive farm use.
- (v) Ecological enhancement projects replanted with native vegetation and conducted by a watershed council or soil and water conservation district

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- (SWCD), or conducted by a land trust or private land owner working in consultation with a watershed council or SWCD.
- (vi) Vegetation removal necessary to carry out development as permitted pursuant to LC 16.298(6)(a)
- (vii) Maintenance of existing primary fuel breaks required by Lane Code. New fuel breaks are not permitted within Surface Water Protections Areas.
- (viii) Right-of-way vegetation management conducted in conformance with LC 15.510.
- (c) In addition to the development and vegetation removal standards of LC 16.298(6)(a) and (b), all new development within a Surface Water Protections Area shall also be subject to the Ground Water Protection requirements of LC 16.298(7)(a) and (b) for Zone A.
- (d) Variances. For any existing lot or parcel that can be demonstrated to have been rendered not developable for a dwelling or for the primary use allowed in the base zone, by application of the LC 16.298(a) through (c), a variance to waive the applicable development restrictions may be applied for. Variances will be processed following the procedures outlined in LC 16.256(1)(a) and (b) and meeting the criteria of LC 16.256(2)(a) and (d) through (f) with additional findings of compliance addressing all of the following criteria:
- (i) It can be demonstrated that the lot or parcel has been rendered undevelopable for a dwelling or for the primary use allowed in the base zone by the application of the LC 16.298(a) through (c). It shall be the burden of the property owner to demonstrate how application of LC 16.298(a) through (c) has rendered the lot or parcel undevelopable.
- (ii) It can be demonstrated that the lot or parcel was lawfully created prior to the effective date of LC 16.298.
- (iii) Approval of development under this provision must meet the following standards:
- (aa) All development shall be located to the greatest degree possible outside of surface water protection areas.
- (bb) The request shall be the minimum necessary to render the property developable.
- (cc) Due to topography, parcel size or configuration, options for development outside of the surface water protection area are physically impossible.
- (dd) The variance is not the result of a self-created hardship. After the effective date of LC 16.298, the reconfiguration of a lot or parcel as a result of a lot or property line adjustment, in whole or part within the setback area, shall be determined to be a self-created hardship by the creator and shall extend to subsequent property owners.
- (ee) Vegetation disturbances shall be minimized and native vegetation shall be used to replant disturbed areas after construction.
 - (7) Ground Water Protection Requirements.
- (a) Zone A Prohibited Uses. The following new uses shall be prohibited within Zone A of the DWP Overlay Zone:
- (i) Storage, use, or production of hazardous materials, except as provided in LC 16.298 (7)(d).
- (ii) Fueling facilities and automobile service stations, except as provided in LC 16.298 (7)(d).
- (iii) Injection wells/dry wells/sumps except drywells for roof drainage.

- (iv) Underground hazardous material storage facilities except those with spill, overfill, and corrosion protections in place.
 - (v) Disposal of hazardous materials.
- (vi) Treatment of hazardous material, except remediation programs authorized by a government agency.
 - (vii) Disposal of septic sludge.
- (viii) Automobile wrecking yards or activities, commercial or otherwise, that result in the accumulation of four or more non-operating vehicles.
- (ix) Outside storage of eight or more nonfunctioning appliances.
- (b) Any increases or alterations of non-conforming uses within Zone A as permitted under LC 16.251, must meet the requirements of LC 16.298(8). Non-conforming uses are uses otherwise prohibited by LC 16.298(7)(a)(i) that were in lawful existence on the date that LC 16.298 took effect.
- (c) Zone B Requirements. New uses prohibited under LC 16.298(7)(a)(i) and LC 16.298(7)(a)(ii) may be conditionally permitted within Zone B provided the requirements of LC 16.298(8) are met. New uses identified in LC 16.298(7)(a)(iii) through (ix) are also prohibited within Zone B.
- (d) Exemptions. The provisions of LC 16.298 do not exempt any material or use from requirements under the Oregon Fire Code. Except as otherwise provided by this section, the following activities and/or materials are exempt from LC 16.298(7):
- materials that do not present a risk to the drinking water source, as determined and listed by the Planning Director. These materials may still need to be included on a Hazardous Material Inventory Statement as required by Fire Code. A Hazardous Material Exemption Request may be submitted to the Planning Director for hazardous materials that can be demonstrated to pose no threat to the drinking 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 a ministerial review by the Planning Director. The Planning Director shall notify and consult with the Department of Environmental Quality, the Oregon Department of Human Services Drinking Water Program, the applicable water utility or water service supplier in the area and the Lane Pollution Prevention Coalition (P2C) prior to making a hazardous material exemption determination.
- (ii) 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 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 Hazardous Material Exemption Request shall be reviewed by the Planning Director in the manner described in LC 16.298(7)(d)(i).
- (iii) Hazardous materials in fuel tanks and fluid reservoirs attached to a private or commercial motor vehicle and used directly in the operation of that vehicle.
- (iv) Hazardous materials in fuel tanks and fluid reservoirs attached to machinery, including but not limited to fuel, engine oil and coolant.
 - (v) Fuel oil used in existing heating systems.

- (vi) Emergency use, storage and handling of hazardous materials by governmental organizations or non-governmental disaster relief organizations in the public interest.
- (vii) Hazardous materials used and stored specifically for water treatment processes of public and private water systems
- (viii) Hazardous materials contained in properly operating sealed units (transformers, refrigeration units, etc.) that are not opened as part of routine use.
 - (ix) Natural gas distribution lines.
- (x) Any commonly used office supply, such as toner or cleaning supplies, where supplies are purchased off-site for use onsite.
- (xi) 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.
- (xii) Pesticide use and storage specifically addressed by state preemption of local pesticide regulation under ORS 634.055 through 634.065.
- (xiii) Hazardous material use in association with Forest activities conducted under the Forest Practices Act.
- (xiv) Aggregate quantities equal to or less than 110 gallons of non-exempt hazardous materials, which are not dense non-aqueous phase liquids (DNAPLs).
- (xv) Aggregate quantities greater than 110 gallons of nonexempt hazardous materials, for residential uses, rural home businesses or home occupations provided:
- (aa) The hazardous materials are not dense non-aqueous phase liquids (DNAPLs).
- (bb) The applicant submits a signed statement to Lane County asserting that all hazardous materials stored on site in excess of 110 gallons will be kept in a primary containment vessel and further protected within a secondary containment vessel will be monitored regularly for leaks or other failures.
- (8) Hazardous Material Special Use Permit Director Review. Increases or alterations of non-conforming uses pursuant to LC 16.298(7)(b) and new uses pursuant to 16.298(7)(c) may be conditionally permitted provided a land use application is submitted pursuant to LC 14.050, processed according to LC 14.100, and approved by the Planning Director upon determination that the criteria of 16.298(8)(a)(i) through (viii) are met. The Planning Director shall condition any such approvals to ensure that the hazardous material management strategies identified LC 16.289(9) are carried out. Prior to issuing a hazardous material special use permit decision the Planning director shall notify and consult with the Department of Environmental Quality, the Oregon Department of Human Services Drinking Water Program and the applicable water utility or water service supplier in the area.
- (a) A hazardous material special use permit application must contain:
- (i) A hazardous material inventory statement and, upon request from the Planning Director, a Material Safety Data Sheet (MSDS) for any hazardous materials to be used, stored or produced on site. Hazardous material weights shall be converted to volume measurement for purposes of determining amounts 10 pounds shall be considered equal to 1 gallon.

- (ii) A detailed description of the activities conducted at the facility that involve the storage, handling, treatment, use or production of hazardous materials.
- (iii) A description of the primary and secondary containment devices proposed.
- (iv) Spill reporting procedures, including a list of affected agencies and affected public water system(s) to be contacted in the event of a spill with current contact information for each agency.
- (v) A description of procedures for inspection and maintenance of containment devices and emergency equipment; and
- (vi) A description of procedures for disposition of unused hazardous materials or hazardous material waste products including the type of transport and proposed route.
- (vii) A list of the chemicals to be monitored through the analysis of groundwater samples and a monitoring schedule if ground water monitoring is anticipated to be required under state or local government water quality permit, cleanup agreements, or other requirements.
- (viii) The location of all operating, unused and abandoned wells on the property with documentation that all abandoned wells have been properly capped or sealed.
- (b) Hazardous material special use permits shall expire five years after the date of issuance but may be renewed indefinitely. Renewal applications shall include updated information required pursuant to LC 16.298(8)(a)(i) through (viii).
- (9) <u>Hazardous Material Management Standards.</u> Uses permitted pursuant to LC 16.298(8) shall meet the following standards:
- (a) Storage, handling, treatment, use, production or otherwise keeping on premises hazardous materials shall be in compliance with containment and safety standards set by the Oregon Fire Code.
- (b) All hazardous materials that pose a risk to a surface or ground water source shall be stored in areas with approved secondary containment in place (Oregon Fire Code Section 2704.2).
- (c) Requirements found in the Oregon Fire Code Section 2704.2.2.5 for a monitoring program 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 a surface or ground water source.
- (d) All spill reporting procedures and contact information described in LC 16.298(8)(iv) shall be updated annually and kept on premises.
- (10) Agency Review. Decisions made by Lane County under LC 16.298 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.
- protection required by LC 16.298 is based on scientific and engineering considerations. These considerations include drinking water source area assessments certified by Oregon Department of Human Services, under the Oregon Administrative Rules that apply to Oregon's EPA-approved Drinking Water Protection Program, which inherently carry associated uncertainties. Any conclusions based on the exact boundaries of the surface or groundwater source areas shall therefore be considered estimates. Under no conditions should LC 16.298 be construed to guarantee the purity of the surface or ground waters or guarantee the prevention of contamination. Therefore, LC 16.298 shall not create liability on the part of the Lane County, or any Lane County personnel, for any

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