g. Achieve compliance with the federal Safe Drinking Water Act, Public Law 93-523.
h. Provide greater clarity of the meaning of terms in the Transportation System Plan (TSP).

II. NARRATIVE

The Florence Realization 2020 Comprehensive Plan was adopted on January 14, 2002 through City Council Ordinance Nos. 1 through 10, Series 2002, in compliance with the city's 1995 Periodic Review Order. In 2008, the City began the process of requesting Lane County co-adoption of the Plan, associated planning documents, and associated Florence Periodic Review work tasks. Following a public hearing and recommendation by the Lane County Planning Commission, the City identified a series of Comprehensive Plan amendments that would address the concerns raised by citizens at the public hearing as well as address additional needed changes to the planning documents, including the proposed housekeeping amendments to the TSP proposed by Lane County Public Works staff. The Comprehensive Plan amendments in Exhibit B address these concerns.

The Lane County Board co-adoption process is underway concurrent with City and County adoption of the additional amendments in Exhibit B. Related actions include City-County approval of an Intergovernmental Agreement that sets out the terms of the groundwater monitoring program; related amendments to the Lane Code; and the receipt of funding by the City of Environmental Protection Agency grant funds to help fund the first three years of the monitoring program, including payment to Lane County for staff participation.

III. NOTICE AND REFERRALS

1. Notice:

The proposed Comprehensive Plan Amendments were noticed in accordance with state law pertaining to Periodic Review. The proposed draft amendments were sent to DLCD the week of October 19, 2009. The hearing was noticed in the Siuslaw News on October 28 to provide citizen involvement opportunities consistent with state law, the Florence Realization 2020 Comprehensive Plan, and the Florence Development Code; and affected property owners and those who submitted written or oral comments were mailed notice consistent with State law and City Code.

2. Referrals:

The City sent referrals to the Oregon Department of Land Conservation and Development, Lane County, Heceta Water District, the Oregon Department of Environmental Quality (DEQ), the Oregon Health Division (DHS), and the Environmental Protection Agency (EPA) – Oregon.

IV. APPLICABLE CRITERIA

1. **Florence Realization 2020 Comprehensive Plan**
   Introduction: Plan Adoption, Amendments, Review and Implementation;
   Chapter 1: Citizen Involvement
   Chapter 6: Air, Water, and Land Quality
   Chapter 11: Utilities and Facilities
   Chapter 12: Transportation
   Chapter 14: Urbanization

2. **Florence City Code (FCC) Title 10: Zoning Regulations**
   Chapter 1: Zoning Administration, Section: 10-1-3 Amendments and Changes, Legislative Changes

3. **Oregon Revised Statutes (ORS) and Administrative Rules (OAR):**
   ORS 197.628, 197.629, 197.633, 197.644, 197.175; OAR Chapter 660 Division 25, Periodic Review, and OAR 025-0080, Citizen Involvement; OAR 340-071-0160, (Septic) Permit Application Procedures -- Construction, Installation, Alteration, and Repair Permits

   ORS 197.524, Moratorium on Construction or Land Development

   OAR 340-071-0130, Department of Environmental Quality, General Standards, Prohibitions and Requirements (1) Public Waters or Public Health Hazards and (13) Operation and Maintenance

   OAR 340-071-0400 (2), General North Florence Dunal Aquifer, North Florence Dunal Aquifer Area, Lane County

4. **Statewide Land Use Planning Goals:** Goal 1, Citizen Involvement; Goal 2, Land Use; Goal 6, Air, Water, and Land Resources Quality; Goal 11, Public Facilities and Services; Goal 12, Transportation; and Goal 14, Urbanization.

5. **Federal Safe Drinking Water Act, Public Law 93-523.**

V. FINDINGS

Applicable criteria are shown in bold and findings are in plain text below.

REALIZATION 2020 FLORENCE COMPREHENSIVE PLAN

Introduction
Plan Adoption, Amendments, Review and Implementation

A review of the Plan shall be conducted by the City when Notice of Periodic Review is received from DLCD (Department of Land Conservation and Development). The Citizen Advisory Committee and the Planning Commission shall provide the framework for Plan Review subject to the specific requirements of the Periodic Review Work Tasks Agreement between the City and DLCD. The City Council may recommend amendments and upgrades as part of the Plan Review process.

The proposal is consistent with this Comprehensive Plan text because:

- A review of the Plan was conducted by the City when Notice of Periodic Review was received from DLCD in 1995.

- The Planning Commission and the Citizen Advisory Committee, provided the framework for Plan Review subject to the specific requirements of the Periodic Review Work Tasks Agreement between the City and DLCD.

- As part of the continuing periodic review process, the City Council recommended additional Comprehensive Plan Amendments. This proposal was initiated by the Florence City Council on September 8, 2008; and Council action was taken upon the recommendation of the Planning Commission, following a joint City Council-Planning Commission public hearing on October 27, 2008; and a second public hearing on the revised proposal on November 16, 2009.

Chapter 1: Citizen Involvement

Policies

4. Official City meetings shall be well publicized and held at regular times. Agendas will provide the opportunity for citizen comment.

5. Records of all meetings where official action is taken shall be kept at City Hall and made available on request to the public.

6. Planning documents and background data shall be available to interested citizens.

8. Citizen involvement shall be assured in the review and update of the Comprehensive Plan.

The Comprehensive Plan amendment process for Exhibit B and Ordinance No. 18, Series 2009 is consistent with these policies because: all City Planning Commission and City Council meetings on this matter were noticed to the media and posted on the City web site, and held at regular times as provided in adopted City policies and Code; agendas provided the opportunity for citizen comment; records of all meetings where official action was taken were kept at City Hall and made available on request to the public; planning documents and background

data were made available to interested citizens; and citizen involvement was assured in the update of the Comprehensive Plan through these amendments.

Chapter 6: Air, Water and Land Quality

Objective

To maintain the quality of the air, water, and land resources through control of waste and process discharges from future development.

Policies

1. **The City shall support regional efforts to control environmental pollution through its compliance with state and federal standards. Department of Environmental Quality permit referrals will be reviewed to insure that proposed activities are consistent with the Comprehensive Plan.**

2. **Water recharge areas, lakes, and streams which have a direct bearing on the quality of the water resources shall be protected to insure the continuous quality and quantity of public water supplies.**

5. **Solid, liquid, gaseous and industrial waste discharges and/or disposal from septic tanks and/or sewers shall not contaminate land, air, and water resources.**

8. **The City shall also ensure that its drinking water supply continues to conform with the Safe Drinking Water Act.**

9. **The City shall meet all applicable standards relating to air quality, water quality and noise pollution.**

11. **All future development within the unincorporated portion of the Florence Urban Growth Boundary shall be coordinated with the State Department of Environmental Quality to insure that the development will not degrade the North Florence Dunal Aquifer, negatively impact the beneficial uses of the water resource, or violate drinking water standards. The City of Florence and Lane County will coordinate their respective roles through a Joint Management Agreement.**

The Comprehensive Plan amendments in Exhibit B are consistent with this objective and the policies in Chapter 6 of the Comprehensive Plan because the amendments will help to protect the quality of water in the North Florence Dunal Aquifer from contamination, including contamination from septic systems. The threat to the aquifer posed by septic systems is documented in the two reports which are included as Exhibits F and G. Exhibit F is the North Florence Dunal Aquifer Study, Final Report, June 1982. Exhibit G is the EPA Resource Docu-

ment "For Consideration of the North Florence Dunal Aquifer as a Sole Source Aquifer," EPA 910/9-87-167, September, 1987. More detail is provided in the findings of consistency with the Safe Drinking Water Act, below. The threat posed by septic systems is also documented in the Florence Water Facilities Plan, September, 1999, as follows.

> City of Florence Water Facilities Plan, September 1999
>
> "Because groundwater is present at shallow depths (less than 50 feet) and the dunal sands have high permeability, it is likely that an accidental release of contamination at the surface would result in groundwater contamination." (Water Facilities Plan, Page ES-9)
>
> "Several freshwater lakes are found within the Florence area, many of which are used for recreation. Clear Lake, one of the largest, is used as a drinking water source for the Heceta Water District, north of the city. The lake is under consideration as a potable water source for the city as well. The city currently obtains is drinking water from wells. Because the soil is highly permeable in this area, these lakes could be subject to contamination if septic tank drain fields are improperly sited or designed." (Water Facilities Plan, Page 2-4)

The Comprehensive Plan amendments in Exhibit B are consistent with the objectives and policies in Chapter 6 of the Comprehensive Plan for this reason and for the following reasons:

- The proposed amendments to Chapter 6 maintain the quality of the water resources through monitoring of groundwater and surface water and limiting the number of septic systems within the UGB (through a prohibition of land divisions).

- The amendments to both Chapter 6 and Chapter 14 are coordinated with Lane County and DEQ and DHS and thus support regional efforts to control environmental pollution through its compliance with state and federal standards.

- The amendments to prohibit future land divisions limit the number of potential new septic systems to about 300 on existing lots; which is much less than would occur if land divisions were allowed prior to annexation. This limits the potential for contamination of water resources from a proliferation of septic tanks.

- The amendments ensure that the drinking water supply in the UGB continues to comply with the Safe Drinking Water Act.

  As discussed in detail in the finding below of compliance with the U.S. Safe Drinking Water Act, and as detailed in the two reports (1) EPA Re-

Water System Supplies and Needs

Goal

To continue to provide an adequate supply of potable water for domestic, business, and industrial needs, as well as sufficient water for fire protection, all in a cost effective manner. (Florence Realization 2020 Comprehensive Plan, page 102)

The proposal is consistent with this goal because the proposal will allow the City to continue to provide an adequate supply of potable water for domestic, business, and industrial needs, as well as sufficient water for fire protection, all in a cost effective manner. Septic systems have been identified by the EPA as a major threat to the quality of drinking water, in its 1987 report designating the North Florence Dunal Aquifer a sole source aquifer. The proposal will protect the aquifer, the City's supply of drinking water by establishing a monitoring program with Lane County and restricting future development in the UGB on septic systems through prohibiting future land divisions prior to annexation.

Chapter 12
Transportation

The proposal is consistent with Chapter 12 and the Transportation System Plan because:

- Amendments to the TSP are housekeeping changes only and do not affect the plan designations, policies or projects in the Plan.

- No change in use is proposed.

Chapter 14
Urbanization

Goal

To provide for an orderly and efficient transition from County/rural land uses to City/urban land uses.

The Comprehensive Plan amendments in Exhibit B are consistent with this Urbanization Goal because they clarify existing City annexation, service extension, and UGB expansion policy; and the amendments are consistent with the Florence Realization 2020 Comprehensive Plan for the following reasons.

- The policies set broad policy direction for annexation in the Comprehensive Plan, as requested by Lane County and citizens during the citizen involvement process.

source Document "For Consideration of the North Florence Dunal Aquifer as a Sole Source Aquifer," EPA 910/9-87-167, September 1987 and (2) North Florence Dunal Aquifer Study, Final Report, June 1982 (Exhibits Fand G, respectively), the Comprehensive Plan amendments to Chapters 6 and 14 are consistent with the Safe Drinking Water Act because they will protect the quality of drinking water in the North Florence Dunal Aquifer from contamination from septic systems by addressing contamination threats, including restricting development in problem areas identified through the monitoring program that tests water quality in the aquifer. (See, also, findings of compliance with "Safe Drinking Water Act Of 1974 (Public Law 93-523, 42 U.S.C. 300 Et. Seq); Section 1424(E)," below)

- The amendments will ensure that the City will continue to meet all applicable standards relating to water quality.

- Through these amendments, all future development within the unincorporated portion of the Florence Urban Growth Boundary will be monitored to determine impact on the North Florence Dunal Aquifer and determine if there is a negative impact on the beneficial uses of the water resource, or potential of violating drinking water standards for new well locations.

- Through this adoption process and Comprehensive Plan policies in Exhibit B, the City of Florence and Lane County will coordinate their respective roles through the adopted Joint Agreement for Planning Coordination and through the "Intergovernmental Agreement Between the City of Florence and Lane County to Conduct a Groundwater Quality Study in the Florence Dunal Aquifer," when signed by the City and the County.

Chapter 11
Utilities and Facilities

Wastewater Collection and Treatment

Goal

To provide cost effective collection and treatment of wastewater consistent with projected population growth and development needs. (Florence Realization 2020 Comprehensive Plan, page 101)

The proposal is consistent with this goal because the proposed policies will ensure that properties are connected to the City's wastewater system as the need arises and this is the most cost-effective collection and treatment of wastewater in the UGB. In the interim, prior to annexation and connection to the municipal system, the proposed policies ensure that the aquifer is protected by establishing a water quality monitoring program in conjunction with Lane County and limiting the number of new septic systems to a maximum of about 300 within the UGB.

- The amendments provide additional clarity to the meaning of Comprehensive Plan policy related to UGB expansions.

- The amendments are consistent with other policies in the Comprehensive Plan, as discussed in the findings in this section, above.

FLORENCE CITY CODE (FCC) TITLE 10: ZONING REGULATIONS

Chapter 1: Zoning Administration

Section 3: Amendments and Changes

FCC 10-1-3-C: Legislative Changes

1. **Initiation: A legislative change in zoning district boundaries, in the text of this Title, Title 11 or in the Comprehensive Plan may be initiated by resolution of the Planning Commission or by a request of the Council to the Planning Commission that proposed changes be considered by the Commission and its recommendation returned to the Council.**

2. **Notice and Public Hearing: Such notice and hearing as prescribed by state law and the Comprehensive Plan then in effect. (Amd. by Ord. 30, Series 1990).**

The proposal is consistent with the criteria in FCC 10-3-C for the following reasons:

- The proposed amendments in Exhibit B are legislative changes to the Comprehensive Plan, affecting a large number of properties with broad policy application;

- The City Council initiated the amendments on September 8, 2008 by motion and requested that the Planning Commission consider the proposed changes and return its recommendation to Council;

- The Florence Planning Commission and City Council held a joint public hearing on October 27, 2008 to gather citizen comments on proposed Plan amendments and the Commission and Council left the record open for written comments to November 3, 2008; and the hearing was broadcast live on the internet and through TV channel 10 and rebroadcast that week on Channel 10;

- The City Council held a second public hearing on the revised amendments on November 16, 2009 which was broadcast live on the internet and through TV Channel 10;

- Notice of the Oct. 27, 2008 public hearing was published in the Siuslaw News on Oct. 15, 22 and 25, 2008. Notice of the Nov. 16, 2009 public hearing was published in the Siuslaw News on Oct. 28, 2009 and was mailed to all those who had submitted comments previously as well as mailed to all property owners outside the city limits and within the UGB. This notice complies with the Comprehensive Plan Policies for Citizen Involvement and with state law as described in findings of compliance with state law, below.

OREGON REVISED STATUTES AND ADMINISTRATIVE RULES

ORS 197.628

Periodic review; policy; conditions that indicate need for periodic review. (1) It is the policy of the State of Oregon to require the periodic review of comprehensive plans and land use regulations in order to respond to changes in local, regional and state conditions to ensure that the plans and regulations remain in compliance with the statewide planning goals adopted pursuant to ORS 197.230, and to ensure that the plans and regulations make adequate provision for economic development, needed housing, transportation, public facilities and services and urbanization.

ORS 197.629

Schedule for periodic review; coordination.

ORS 197.633

Two phases of periodic review; rules; appeal of decision on work program; schedule for completion; extension of time on appeal.

ORS 197.644

Modification of work program; commission jurisdiction and rules.

(1) The Land Conservation and Development Commission may direct or, upon request of the local government, the Director of the Department of Land Conservation and Development may authorize a local government to modify an approved work program when:

(a) Issues of regional or statewide significance arising out of another local government's periodic review require an enhanced level of coordination;

(b) Issues of goal compliance are raised as a result of completion of a work program task resulting in a need to undertake further review or revisions;

(c) Issues relating to the organization of the work program, coordination with affected agencies or persons, or orderly implementation of work tasks result in a need for further review or revision; or

(d) Issues relating to needed housing, employment, transportation or public facilities and services were omitted from the work program but must be addressed in order to ensure compliance with the statewide planning goals.

(2) The commission shall have exclusive jurisdiction for review of the evaluation, work program and completed work program tasks as set forth in ORS 197.628 to 197.650. The commission shall adopt rules governing standing, the provision of notice, conduct of hearings, adoption of stays, extension of time periods and other matters related to the administration of ORS 197.180, 197.245, 197.254, 197.295, 197.320, 197.620, 197.625, 197.628 to 197.650, 197.712, 197.747, 197.840, 215.416, 227.175 and 466.385.

(3)(a) Commission action pursuant to subsection (1) or (2) of this section is a final order subject to judicial review in the manner provided in ORS 197.650.

(b) Action by the director pursuant to subsection (1) of this section may be appealed to the commission pursuant to rules adopted by the commission. Commission action under this paragraph is a final order subject to judicial review in the manner provided in ORS 197.650. [1991 c.612 §6; 1997 c.634 §1; 1999 c.622 §5]

The amendments are consistent with Oregon Revised Statutes pertaining to periodic review work tasks because the Department of Land Conservation and Development approved the City's Periodic Review Work Program on November 3, 1995 and approved revisions to the Work Program on March 20, 1997, and left the Work Program Completion Date, "Open."

OAR Chapter 660, Division 25: Periodic Review

The amendments are consistent with Oregon Administrative Rules pertaining to periodic review work tasks because the Department of Land Conservation and Development approved the City's Periodic Review Work Program on November 3, 1995 and approved revisions to the Work Program on March 20, 1997, and left the Work Program Completion Date, "Open."

OAR-025-0080
Citizen Involvement

(1) The local government must use its acknowledged or otherwise approved citizen involvement program to provide adequate participation opportunities for citizens and other interested persons in all phases of the local periodic review. Each local government must publish a notice in a newspaper of general circulation within the community informing citizens about the initiation of the local periodic review. The local government must

also provide written notice of the initiation of the local periodic review to other persons who, in writing, request such notice.

(2) Each local government must review its citizen involvement program and assure that there is an adequate process for citizen involvement in all phases of the periodic review process. Citizen involvement opportunities must, at a minimum, include:

> **(a) Interested persons must have the opportunity to comment in writing in advance of or at one or more hearings on the periodic review evaluation. Citizens and other interested persons must have the opportunity to present comments orally at one or more hearings on the periodic review evaluation. Citizens and other interested persons must have the opportunity to propose periodic review work tasks prior to or at one or more hearings. The local government must provide a response to comments at or following the hearing on the evaluation.**
>
> **(b) Interested persons must have the opportunity to comment in writing in advance of or at one or more hearings on a periodic review work task. Citizens and other interested persons must have the opportunity to present comments orally at one or more hearings on a periodic review work task. The local government must respond to comments at or following the hearing on a work task.**

The amendments to comply with Periodic Review Work Task 8 are consistent with this OAR because:

- As discussed below in the findings of consistency with Statewide Planning Goal 1, the adoption of the Realization 2020 Comprehensive Plan was the result of a multi-year effort on the part of the City Council, Planning Commission, Citizen Advisory Committee, and the general public. The City provided written notice of the initiation of the local periodic review to other persons who, in writing, requested such notice, and provided notice in the Siuslaw News.

- The City used its acknowledged citizen involvement program to provide adequate participation opportunities for citizens and other interested persons in all phases of the local periodic review.

- The City reviewed its citizen involvement program and assured that there was an adequate process for citizen involvement in all phases of the periodic review process. Citizen involvement opportunities included:

    - Interested persons had the opportunity to comment in writing in advance of or at all hearings on the periodic review evaluation. Citizens and other interested persons had the opportunity to present comments orally at all hearings on the periodic review evaluation.

Citizens and other interested persons had the opportunity to propose periodic review work tasks prior to or at one or more hearings. The City provided a response to comments at or following the hearing on the evaluation.

- Interested persons had the opportunity to comment in writing in advance of or at one or more hearings on a periodic review work task. Citizens and other interested persons had the opportunity to present comments orally at all hearings on the periodic review work tasks. The City responded to comments at or following the hearing on the work task.

- Notice of the recently initiated amendments to the Comprehensive Plan was published in the Siuslaw News.

ORS 197.175: Cities' and Counties' Planning Responsibilities; Rules on Incorporations; Compliance with Goals.

(2) Pursuant to ORS Chapters 195, 196 and 197, each city and county in this state shall: (a) Prepare, adopt, amend and revise comprehensive plans in compliance with goals approved by the commission;

The proposal is consistent with ORS 197.175 because this staff report contains findings to conclude that the proposed comprehensive plan revisions are in compliance with the goals approved by the commission. Statewide Planning Goals 1, 6, 11, 12, and 14 apply to this proposal. A finding of "Not Applicable to this Proposal" is incorporated into these findings for all other Statewide Planning Goals not specifically cited below.

OAR 340-071-0160: (Septic) Permit Application Procedures -- Construction, Installation, Alteration, and Repair Permits

(4) Permit denial. The agent must deny a permit if any of the following occurs.

(f) A sewerage system that can serve the proposed sewage flow is both legally and physically available, as described in paragraphs (A) and (B) of this subsection.

(A) Physical availability.

(i) A sewerage system is considered available if topographic or man-made features do not make connection physically impractical and one of the following applies.

(I) For a single family dwelling or other establishment with a maximum projected daily sewage flow

not exceeding 899 gallons, the nearest sewerage connection point from the property to be served is within 300 feet.

(II) For a proposed subdivision or group of two to five single family dwellings or other establishment with the equivalent projected daily sewage flow, the nearest sewerage connection point from the property to be served is not further than 200 feet multiplied by the number of dwellings or dwelling equivalents.

(III) For proposed subdivisions or other developments with more than five single family dwellings or equivalent flows, the agent will determine sewerage availability.

(B) Legal availability. A sewerage system is deemed legally available if the system is not under a department connection permit moratorium and the sewerage system owner is willing or obligated to provide sewer service.

The proposal is consistent with this Administrative Rule for the Oregon Department of Environmental Quality because properties will connect to the City's wastewater system when the system is legally and physically available as defined in OAR 340-071-0160 and the policies do not affect these provisions in State law.

OREGON REVISED STATUTES: MORATORIUM ON CONSTRUCTION OR LAND DEVELOPMENT: ORS 197.505 to 197.540

ORS 197.524 Local government to adopt moratorium or public facilities strategy following pattern or practice of delaying or stopping issuance of permits. (1) When a local government engages in a pattern or practice of delaying or stopping the issuance of permits, authorizations or approvals necessary for the subdivision or partitioning of, or construction on, any land, including delaying or stopping issuance based on a shortage of public facilities, the local government shall:

(a) Adopt a public facilities strategy under ORS 197.768; or

(b) Adopt a moratorium on construction or land development under ORS 197.505 to 197.540.

(2) The provisions of subsection (1) of this section do not apply to the delay or stopping of the issuance of permits, authorizations or approvals because they are inconsistent with the local government's comprehensive plan or land use regulations. [1999 c.838 §3]

The proposed Comprehensive Plan amendments are consistent with ORS 197.505 to 197.540 for the following reasons:

1. Having a local joint City-County program in place to identify and remedy contamination threats is not itself declaring a moratorium on development.
2. If a moratorium is deemed necessary, the City and County will comply with all of the requirements in ORS 197.505-540.
3. Lane County, as an agent of DEQ, is required by law to deny septic permits when septic systems are shown to be contaminating the groundwater, as stated in findings below for compliance with Oregon Administrative Rules for DEQ.

In accordance with proposed Comprehensive Plan Chapter 6 Policy 12, if the groundwater monitoring program results in a pattern or practice of delaying or stopping the issuance of permits, the City and County shall jointly adopt a public facilities strategy under ORS 197.768; or the County shall adopt a moratorium on construction or land development under ORS 197.505 to 197.540.

OREGON ADMINISTRATIVE RULES
Chapter 340, Division 71 - Department of Environmental Quality

OAR 340-071-0130
General Standards, Prohibitions and Requirements
(1) Public Waters or Public Health Hazards. If, in the judgment of the Agent, proposed operation of a system would cause pollution of public waters or create a public health hazard, system installation or use shall not be authorized. If, in the judgment of the Agent, the minimum standards contained in these rules do not afford adequate protection of public waters or public health, the requirements shall be more stringent. This may include, but is not limited to, increasing setbacks, increasing drainfield sizing and/or utilizing an Alternative System. If the Agent imposes requirements more stringent than the minimum, the Agent shall provide the applicant with a written statement of the specific reasons why the requirements are necessary.

The proposal is consistent with OAR 340-071-0130, because, if, in the judgment of Lane County staff who are acting as the agent of DEQ, the results of the groundwater testing program conclude that proposed operation of a septic system would cause pollution of the aquifer or create a public health hazard in the UGB portion of the Area of Concern, the County shall prohibit septic system installation or use until the threat to the groundwater or public health is removed.

The proposal is consistent with OAR 340-071-0130(1) because proposed Policy 13 in Comprehensive Plan Chapter 6 provides for Lane County, as the legally designated Agent for DEQ, to act in accordance with the requirements of OAR 340-071-0130, and the minimum standards that will be applied to protect the aquifer shall be more stringent than the standards contained in these administrative

rules where Lane County determines that the standards do not afford adequate protection of public waters or public health. The requirements may include, but are not limited to, increasing setbacks, increasing drainfield sizing and/or utilizing an Alternative System. If Lane County staff imposes requirements more stringent than the minimum, staff shall provide the applicant with a written statement of the specific reasons why the requirements are necessary.

OAR 340-071-0130
(13) Operation and Maintenance. All systems shall be operated and maintained so as not to create a public health hazard or cause water pollution. Those facilities specified in sections (15) or (16) of this rule as requiring a WPCF permit shall have operation and maintenance requirements established in the permit.

The proposal is consistent with OAR 340-071-0130(13) because the proposed Policy 12 provides for a process to identify and remedy threats to the City's sole source aquifer and to ensure that all septic systems are operated and maintained so as not to create a public health hazard or cause water pollution.

OAR 340-071-0400
Geographic Area Special Considerations.

(2) General North Florence Aquifer, North Florence Dunal Aquifer Area, Lane County.

(a) Within the area described in subsection (b) of this section, an agent may approve sites or issue construction-installation permits for new onsite systems under either of the following circumstances.

(A) The lot and proposed system comply with all rules in effect at the time the site is approved or the permit is issued.

(B) The lot and proposed system comply with paragraph (A) of this subsection except for the projected daily sewage loading rates, and the agent determines the system in combination with all other previously approved systems owned or legally controlled by the applicant will not contribute to the local groundwater more than 58 pounds of nitrate-nitrogen per year per acre owned or controlled by the applicant.

The proposal is consistent with OAR 340-071-0400 because Lane County will issue septic permits in the Florence UGB outside city limits in compliance with all rules in effect at the time the site is approved or the permit is issued and the combined total contribution of nitrate-nitrogen to the groundwater will, under no circumstances exceed 58 pounds of nitrate-nitrogen per year per acre owned or controlled by the applicant.

STATEWIDE PLANNING GOALS

Goal 1: Citizen Involvement [OAR 660-015-0000(1)]

3. Citizen Influence -- To provide the opportunity for citizens to be involved in all phases of the planning process.

Citizens shall have the opportunity to be involved in the phases of the planning process as set forth and defined in the goals and guidelines for Land Use Planning, including Preparation of Plans and Implementation Measures, Plan Content, Plan Adoption, Minor Changes and Major Revisions in the Plan, and Implementation Measures.

The proposal is consistent with Statewide Planning Goal 1 because citizens were given the opportunity to be involved in all phases of the planning process: from the Periodic Review Work Program (as described above) to these amendments, as described below. The proposal was advertised in the Siuslaw News and citizens were given the opportunity to comment on the proposal in writing or in person at a public hearing before the Planning Commission and the City Council.

The Florence Planning Commission and City Council held a joint public hearing on October 27, 2008 to gather citizen comments on the proposed plan amendments. The Commission and Council both left the record open, asking for comments to be submitted by 3:00 on November 3, 2008. The Planning Commission met on November 5, 2008 and made a recommendation on the proposed policy amendments that included a change to proposed Annexation Policy. On November 17, 2008, the Council discussed the recommendations and directed staff to prepare an analysis of the potential for development in the UGB in order to better assess the policy options for protecting the aquifer. On January 26, 2009, the Council directed that the City and County staff draft an Intergovernmental Agreement with Lane County for water quality monitoring so that the implementation of the new policies would be evident to the Council and the public prior to Council taking action on the amendments; on October 12, 2009, the Council further directed staff to schedule a new public hearing on the revised proposal. The Council held a second public hearing on November 16, 2009 and citizens were given the opportunity to present comments and testify.

Goal 2: Land Use [OAR 660-015-0000(2)]

All land-use plans and implementation ordinances shall be adopted by the governing body after public hearing and shall be reviewed and, as needed, revised on a periodic cycle to take into account changing public policies and circumstances, in accord with a schedule set forth in the plan. Opportunities shall be provided for review and comment by citizens and affected governmental units during preparation, review and revision of plans and implementation ordinances.

The proposal is consistent with Goal 2 because the proposed revisions to the Comprehensive Plan were adopted by the Florence City Council after public

hearing and take into account changing public policies and circumstances, in accordance with the City's DLCD Periodic Review Notice; opportunities were provided for review and comment by citizens and affected governmental units during preparation, review, and revision of the plan.

Goal 6: Air, Water And Land Resources Quality [OAR 660-015-0000(6)]

To maintain and improve the quality of the air, water and land resources of the state.

All waste and process discharges from future development, when combined with such discharges from existing developments shall not threaten to violate, or violate applicable state or federal environmental quality statutes, rules and standards.

The amendments in Exhibit B are consistent with Statewide Planning Goal 6 because they will maintain and improve the quality of water resources in the Florence UGB; and they will ensure that, by prohibiting future land divisions prior to annexation and by addressing water quality issues identified through the monitoring program, the threat to water quality from septic systems will be minimized. All wastewater discharges from future development, when combined with such discharges from existing developments shall not threaten to violate, or violate the Safe Drinking Water Act or other federal or state environmental quality statutes, rules, and standards. Water quality will be improved through these Comprehensive Plan amendments because the water quality assessment and monitoring program will provide an opportunity to remedy any existing contamination discovered in the water quality assessment.

Goal 11: Public Facilities and Services [OAR 660-015-0000(11)]

To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

The proposal is consistent with Goal 11 because the policies apply to properties within the Florence UGB that will be served in accordance with City facility management consistent with the Comprehensive Plan and for areas now outside the city, with annexation and service policies. Key facilities and services can be provided to the areas upon development, including water, wastewater, stormwater, and transportation, consistent with the policies in the Florence Realization 2020 Comprehensive Plan.

Goal 12: Transportation [OAR 660-015-0000(12)]

To provide and encourage a safe, convenient and economic transportation system.

OAR 660-012-0060

Plan and Land Use Regulation Amendments

(1) Where an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation would significantly affect an existing or planned transportation facility, the local government shall put in place measures as provided in section (2) of this rule to assure that allowed land uses are consistent with the identified function, capacity, and performance standards (e.g. level of service, volume to capacity ratio, etc.) of the facility. A plan or land use regulation amendment significantly affects a transportation facility if it would:

> **(a) Change the functional classification of an existing or planned transportation facility (exclusive of correction of map errors in an adopted plan);**
>
> **(b) Change standards implementing a functional classification system; or**
>
> **(c) As measured at the end of the planning period identified in the adopted transportation system plan:**
>
> > **(A) Allow land uses or levels of development that would result in types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility;**
> >
> > **(B) Reduce the performance of an existing or planned transportation facility below the minimum acceptable performance standard identified in the TSP or comprehensive plan; or**
> >
> > **(C) Worsen the performance of an existing or planned transportation facility that is otherwise projected to perform below the minimum acceptable performance standard identified in the TSP or comprehensive plan.**

The proposal is consistent with Goal 12 and these provisions in the Transportation Planning Rule because the proposal clarifies existing policies and text in the TSP and does not adopt new policy or projects and will not significantly affect a transportation facility, as follows:

> (a) They will not cause a change in the functional classification of an existing or planned transportation facility;

(b) they do not change standards implementing a functional classification system; or

(c) as measured at the end of the planning period identified in the adopted transportation system plan:

(A) they do not allow land uses or levels of development that would result in types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility;

(B) they do not reduce the performance of an existing or planned transportation facility below the minimum acceptable performance standard identified in the TSP or comprehensive plan; or

(C) they do not worsen the performance of an existing or planned transportation facility that is otherwise projected to perform below the minimum acceptable performance standard identified in the TSP or comprehensive plan.

Goal 14: Urbanization [OAR 660-015-0000(14)]

To provide for an orderly and efficient transition from rural to urban land use, to accommodate urban population and urban employment inside urban growth boundaries, to ensure efficient use of land, and to provide for livable communities.

Land Need
Establishment and change of urban growth boundaries shall be based on the following: (1) Demonstrated need to accommodate long range urban population, consistent with a 20-year population forecast coordinated with affected local governments.

The amendments in Exhibit B are consistent with Goal 14 because the following amendments to the Comprehensive Plan UGB Policy were made in order to ensure consistency with the above requirement related to the "20-year population forecast coordinated with affected local governments:"

"UGB Policy

1. Establishment and change of the UGB shall be a cooperative process between the City and the County. Boundary changes shall be considered only on an annual basis. Applications for boundary changes shall include documentation that the following criteria are met:

a. The proposed change provides for a demonstrated need to accommodate long-range urban population growth requirements consistent with applicable LCDC goals and administrative rules. UGB expansions to accommodate the need for residential land shall be based on any coordinated population allocations adopted in accordance with state law, including applicable state statutes and administrative rules pertaining to coordinated population allocations..."

Urbanizable Land

Land within urban growth boundaries shall be considered available for urban development consistent with plans for the provision of urban facilities and services. Comprehensive plans and implementing measures shall manage the use and division of urbanizable land to maintain its potential for planned urban development until appropriate public facilities and services are available or planned.

The proposed amendments comply with the Urbanizable Land requirements of Goal 14 because City plans for the provision of urban facilities and services provide that urban services and facilities can be provided within the UGB upon annexation to the city; and, under proposed Comprehensive Plan Urbanization, Annexation Policy #2, future land divisions outside the city will be prohibited prior to annexation, ensuring that these properties will develop inside the city at urban densities and served with municipal public facilities and services.

SAFE DRINKING WATER ACT OF 1974 (PUBLIC LAW 93-523, 42 U.S.C. 300 ET. SEQ); SECTION 1424(E)

If the Administrator determines, on his own initiative or upon petition, that an area has an aquifer which is the sole or principal drinking water source for the area and which, if contaminated, would create a significant hazard to public health, he shall publish notice of that determination in the Federal Register. After the publication of any such notice, no commitment for federal financial assistance (through a grant, contract, loan guarantee, or otherwise) may be entered into for any project which the Administrator determines may contaminate such aquifer through a recharge zone so as to create a significant hazard to public health, but a commitment for federal assistance may, if authorized under another provision of law, be entered into to plan or design the project to assure that it will not so contaminate the aquifer.

The Comprehensive Plan policy amendments to Chapters 6 and 14 are consistent with the Safe Drinking Water Act because they will protect the quality of drinking water in the North Florence Dunal Aquifer from contamination from septic systems through a joint monitoring program which will identify and respond to threats; through the prohibition of land divisions; and through the availability of municipal wastewater system to resolve threats to water quality in the aquifer, where applicable.

The North Florence Dunal Aquifer Study, Final Report, June 1982 (Exhibit F) includes the following statements in the findings on page 104.

> "Finding 14. Subsurface disposal of sewage waste is the primary human caused source of nitrate-nitrogen. Except for the landfill, the school district and the golf course, there are no other significant human caused nitrate sources within the North Florence watershed.
>
> Finding 20. Based on a policy of no degradation of Clear Lake, a total of 8.7 dwelling units should be allowed on the entire 1040 acre watershed (850 acres of land surface). There are currently 30 units in the watershed on septic systems, 10 of which are permanently occupied. The impact from the current systems on nitrate-nitrogen levels in Collard Lake may be only partially seen at this time.
>
> Finding 21. Throughout much of the remainder of the aquifer, nitrate-nitrogen levels are near background levels of 0.03 mg/L. This level assumes contributions only from rainfall and is represented by the open dune areas.
>
> Finding 22. Based on the planning standard of 5.0 mg/L nitrate-nitrogen calculations indicate an additional loading of 58 lbs. per acre per year nitrate-nitrogen will not exceed this value using a stirred tank model. This translates to 2.9 d.u. per acre with onsite systems using loading rates of 20 lbs. per d.u. per year.
>
> Finding 23. Nitrate-Nitrogen loading considerations for the Florence Well Field are identical with those for the general North Florence Aquifer."

In September, 1987, the EPA designated the North Florence Dunal Aquifer a sole source aquifer, based on the following conclusions:

> "An aquifer must supply 50 percent or more of the drinking water for an area in order to receive designation as a sole source aquifer. Ground water supplies about 68% of the drinking water in the North Florence area. Furthermore, ground water partly recharges the one source of surface water used as drinking water. No feasible alternative sources to the North Florence Dunal Aquifer system exist in the area. Therefore, contamination of the aquifer would "create a significant hazard to public health." (EPA Resource Document "For Consideration of the North Florence Dunal Aquifer as a Sole Source Aquifer," EPA 910/9-87-167, September 1987, page 9)
>
> The EPA designated the boundaries of the North Florence Dunal Aquifer. The boundary is described below and is depicted in the map "North Florence Dunal Aquifer."

"The North Florence Dunal Aquifer encompasses the entire continuous body of sand located north of the Siuslaw River and east of the Pacific Ocean. The surface contact between bedrock and the unconsolidated sand forms the northern and eastern boundary of the designated area as far south as Mercer Lake. The boundary between bedrock and the dunal aquifer has been drawn on the basis of a surface geological map published in 1974 by the Oregon Department of Geology and Mineral Industries. In addition to the dunal sand area itself, steep drainage areas east of Collard, Clear, Ackerly, and Munsel Lakes have been included in the proposed designated area because those lakes are hydrologically connected to the aquifer. Therefore, the surface drainage divide located just east of the lakes forms the eastern boundary of the area proposed for designation from Mercer Lake south to the Siuslaw River." ." (EPA Resource Document "For Consideration of the North Florence Dunal Aquifer as a Sole Source Aquifer," EPA 910/9-87-167, September, 1987, page 5)

The EPA states that the aquifer is "highly susceptible to contamination" from septic systems (not just failed systems) and that "direct leaching from septic tanks located in the sand-covered areas adjacent to the lakes could seriously downgrade the quality of Clear Lake – the only surface source of drinking water presently used in the area." The report describes the threat to the drinking water, as follows:

"Potential for Contamination
Rapid infiltration rates into the sand cover combined with a shallow water table make the North Florence Dunal Aquifer highly susceptible to contamination from surface activity. Despite the relatively rapid flow of ground water through the aquifer, water soluble contaminants introduced near the surface may remain in the ground water system for nearly 60 years. Immiscible contaminants, such as petroleum distillates, would spread rapidly if spilled onto the permeable sand cover but would resist flushing by natural ground water flow.

Possible sources of aquifer contamination include fuel storage tank failure, accidental spills of hazardous material transported across the aquifer, septic tank effluent, storm runoff, pesticides, and chemical fertilizers. The lakes located along the eastern margin of the dunal aquifer would suffer from any contaminants introduced into that portion of the aquifer which recharges the lakes. Direct leaching from septic tanks located in the sand-covered areas adjacent to the lakes could seriously downgrade the quality of Clear Lake – the only surface source of drinking water presently used in the area." (EPA Resource Document "For Consideration of the North Florence Dunal Aquifer as a Sole Source Aquifer," EPA 910/9-87-167, September, 1987, page 5)

VI. CONCLUSION

The proposal to adopt Periodic Review amendments to the Realization 2020 Comprehensive Plan is consistent with applicable criteria in Florence Realization 2020 Comprehensive Plan, Florence City Code, Oregon Revised Statutes and Administrative Rules, Statewide Planning Goals, and the federal Safe Drinking Water Act, Public Law 93-523.

P:\Community Development\Comp Plan\County Co-adoption 2008\Annexation Policy Amendments\CC Dec 21 meeting\EXHIBIT A FINDINGS Ord 18 Series 2009.doc

Attachment 3

Comprehensive Plan provisions relating to the respective city urban growth boundary. *(Revised by Ordinance No. 15-79, Effective 12.1.79; 10-82, 7.9.82)*

10.122-10 Permitted Buildings and Uses.
All buildings and uses permitted in the respective district with which the /U District is combined, **except as herein specifically modified.** *(Revised by Ordinance No. 15-79, Effective 12.1.79)*

10.122-13 Special Uses--Planning Director Review.
All buildings and uses subject to the approval of the Planning Director, pursuant to LC 14.100, in the respective district with which the /U District is combined, **except as herein specifically modified.** *(Revised by Ordinance No. 10-82, Effective 7.9.82; 16-83, 9.14.83)*

10.122-14 Special Uses--Hearings Official's Approval.
All buildings and uses subject to the approval of the Hearings Official, pursuant to LC 14.300, in the respective district with which the /U District is combined, **except as herein specifically modified.** *(Revised by Ordinance No. 10-82, Effective 7.9.82; 16-83, 9.14.83)*

10.122-15 Conditional Uses.
All buildings and uses permitted conditionally in the respective district with which the /U District is combined, **except as herein specifically modified.** *(Revised by Ordinance No. 15-79, Effective 12.1.79)*

10.122-20 Site and Development Requirements.
The requirements for yards, setbacks, coverage, vision clearance, height and parking shall be the same as provided in the respective district with which the /U District is combined, except as herein specifically modified. *(Revised by Ordinance No. 15-79, Effective 12.1.79; 10-82, 7.9.82)*

Florence Urban Growth Boundary

10.122-25 Location.
The /U Combining District is for the purpose of reviewing land within those areas that are considered transitional and/or marginal; conditions which could either restrict and/or limit urban and semi-urban uses. *(Revised by Ordinance No. 10-82, Effective 7.9.82)*

10.122-30 Lot Area.
~~(1)~~ For land **within the Florence UGB that is within the North Florence Dunal Aquifer boundary, as designated by the U.S. Environmental Protection Agency in September, 1987,** ~~served by a community water supply and community sewerage system,~~ the minimum lot area shall be as provided by the respective district with which the /U District is combined, **except that no land divisions within the boundaries of the Florence Dunal Aquifer shall be allowed prior to annexation to the City.**

~~(2) For land not served by a community water system and community sewerage system, the minimum lot area shall be 10 acres, except that smaller lot areas may be permitted where:~~

~~(a) Initial connection to a community sewerage system is not feasible.~~

~~(b) The proposed parcel size, configuration and number will be consistent with the long range sewerage plan for the area where such plans exist.~~

~~(c) The proposed land division will be adequately served by interim sewerage disposal facilities and will not adversely affect other properties by causing water pollution.~~

~~(d) The design and operation of the proposed land division or development will allow for later conversion to urban densities in an orderly and efficient manner and not otherwise preempt the subject property and other properties from:~~

~~(i) Later inclusion into a community sewerage system.~~

~~(ii) Inclusion into the City of Florence.~~

~~(iii) The orderly provision of other community services and facilities.~~

~~(3) For land designated Limited Service Area by the Florence Comprehensive Plan, the minimum lot or parcel size shall be 10 acres. A lot of less than 10 acres may be approved if, on the basis of findings contained in a site investigation report, the following conditions are met in addition to any other applicable criteria:~~

~~(a) The site investigation report shall determine the carrying capacity, as defined by the Statewide Planning Goals, of the site. The report shall demonstrate that the proposed development would be in conformance with the Florence Comprehensive Plan and the Coastal Resources Management Plan.~~

~~(b) The development will be served by a public water system and sewerage system which meets the standards of the State Department of Environmental Quality.~~

~~(c) The report shall address any development hazards inventoried in the comprehensive plan, the proposal shall be allowed only when the report demonstrates that any hazards and constraints can be mitigated or do not exist on the specific property.~~

10.122-31 Land Uses.

~~**For land within the Florence UGB that is within the North Florence Dunal Aquifer boundary, as designated by the U.S. Environmental Protection Agency in September, 1987, no land uses that require an expansion or installation of a new septic system will be allowed, unless the applicant provides proof that an exception has been made as evidenced by final written action of the Florence City Council. Replacement of a failing septic system for existing uses is allowed if consistent with state law.**~~ *(Revised by Ordinance No. 10-82, Effective 7.9.82; 2-83, 4.1.83)*

Eugene-Springfield Urban Growth Boundary

10.122-35 Location.

The /U Combining District is to be applied to urbanizable properties designated for residential use in the Eugene-Springfield Metropolitan Area General Plan which are undeveloped or which are wholly or partially underdeveloped. In situations where property is zoned /U on the periphery of the urban growth boundary and the growth boundary may bisect the property by generally following a physical feature, such as a ridge line, the actual interpretation of the growth boundary location is necessary. For the purposes of this District it will be determined by application of the requirements of LC 10.122-40 below in the absence of interpretation by means of a refinement planning process for the property. Land zoned /U and which is thereafter interpreted as being outside the urban growth boundary shall not be considered as urbanizable and shall not be

Ordinance No. 7-08 Findings of Fact
Amending Chapter 10 of Lane Code To Revise and Add Provisions For the Interim Urbanizing Combining District (/U) Applicable Within The Florence UGB

I. REQUEST

The City of Florence requests Lane County adopt amendments to Lane Code, Chapter 10, as shown in Ordinance No. 7-08 to implement Florence Realization 2020 Comprehensive Plan policies adopted by the City to complete Florence state-mandated Periodic Review Work Task 8.

The purpose of this request is to achieve coordinated City-County compliance with Statewide Planning Goal 2 and to achieve some of the policies that address the federal Safe Drinking Water Act, as discussed in the findings. The North Florence Dunal Aquifer was designated by EPA as a sole source aquifer in September 1987, as reported in the document, "Resource Document For Consideration of the North Florence Dunal Aquifer as a Sole Source Aquifer, EPA 910/9-87-167," September 29, 1987 (North Florence Dunal Aquifer Study). This document and associated map were adopted as part of the Lane County Coastal Resources Management Plan by Lane County on June 19, 1980, with the most recent revision adopted in 1991 through Ordinance No. 1000.

The objectives of amending Lane Code Chapter 10 to revise and add provisions for the Florence Interim Urbanizing Combining District (/U) through Ordinance No. 7-08 are to:

a. Protect the health, safety, and welfare of the citizens of Florence and Lane County, within the Florence urban growth boundary (UGB), by ensuring the quality of the drinking water is protected from any negative effects from contamination. Water Quality finding 14 in the resource document states "Subsurface disposal of sewage waste is the primary human caused source of nitrate-nitrogen. Except for the landfill, the school district, and the golf course, there are no other significant human caused nitrate sources within the North Florence watershed."

b. Implement City "Air, Water, and Land Quality" and "Urbanization" policies found in the Florence Realization 2020 Comprehensive Plan and refinement plans as co-adopted by the city and county under Florence Periodic Review work tasks.

II. APPLICABLE CRITERIA

1. **Lane Code Chapter 10:** LC10.015, 10.315-05, 10.315-20.
2. **Florence Realization 2020 Comprehensive Plan**
3. **Oregon Revised Statutes and Administrative Rules:** ORS 197.628, 197.629, 197.633, 197.644, 197.175; OAR Chapter 660 Division 25, Periodic Review, and OAR 025-0080, Citizen Involvement
4. **Statewide Land Use Planning Goals:** Goal 1, Citizen Involvement; Goal 2, Land Use; Goal 6, Air, Water, and Land Resources Quality; Goal 11, Public Facilities and Services; and Goal 14, Urbanization.

III. FINDINGS

Applicable criteria are shown in bold and findings are in plain text below.

LANE CODE

10.015 Purpose.
The purpose of this chapter is to provide procedures for dividing the unincorporated portions of Lane County into districts and to provide requirements pertaining to such districts in accordance with a comprehensive plan, and is adopted to protect and promote the public health, safety, welfare, and to promote the implementation of the Comprehensive Plan for Lane County. Such procedures and requirements are intended to achieve the following objectives:
(1) To encourage the most appropriate use of land and resources throughout the County.
(2) To facilitate the adequate and efficient provision of transportation, water, sewerage, schools, parks, and other public requirements.
(3) To avoid undue concentration of population.
(4) To secure safety from fire, panic, flood and other dangers.
(5) To prevent the overcrowding of land.
(6) To provide adequate light and air.
(7) To lessen congestion in the streets, roads, and highways.
(8) To provide an environment of character in harmony with existing and proposed neighboring use of land.
(9) To preserve and enhance the quality of Lane County's environment.

The urbanizable area of the city of Florence is where Lane Code Chapter 10 applies. The UGB is coincident with the North Florence Dunal Aquifer, a sole source aquifer which covers the broad area of dunal sand extending from the Siuslaw River to Sutton Creek and from the Pacific Ocean to the bedrock ridge east of Clear Lake. Because Florence is entirely within this identified district, and the city's primary source of municipal water is from groundwater wells, the above objectives are found to apply to the urbanizable area. The Code amendments will limit the further dividing of the unincorporated portion of the Florence UGB, and will further the objectives (1), (2), (8), and (9), above.

10.315-05 Purpose.
As the Comprehensive Plan for Lane County is implemented, changes in District and other requirements of this chapter will be required.

Florence is completing periodic review to update their Comprehensive Plan for application within the long term planning horizon extending to the year 2020. The proposed amendments to Lane Code Chapter 10 are found to support the policy amendments to Realization 2020 addressing concerns in the Urbanizing Combining District (/U) regarding increased density development and potential for groundwater contamination in the sole source aquifer.

10.315-20 Criteria.
Zonings, rezonings and changes in the requirements of this chapter shall be enacted to achieve the general purpose of this chapter and shall not be contrary to the public interest.

The general purpose of chapter 10 requires consideration of changes that could be considered to promote implementation of revised and updated Comprehensive Plans in Lane County. The appropriate use of land and resources in the Florence community is updated through periodic review. The proposed amendments to the Florence Urbanizing Combining District are found to be in harmony with existing and proposed neighboring uses of land and are not contrary to the public interest as demonstrated in these findings.

REALIZATION 2020 FLORENCE COMPREHENSIVE PLAN
Chapter 6, Air, Water and Land Quality
Objective

To maintain the quality of the air, water, and land resources through control of waste and process discharges from future development.

Policies

1. **The City shall support regional efforts to control environmental pollution through its compliance with state and federal standards. Department of Environmental Quality permit referrals will be reviewed to insure that proposed activities are consistent with the Comprehensive Plan.**

2. **Water recharge areas, lakes, and streams which have a direct bearing on the quality of the water resources shall be protected to insure the continuous quality and quantity of public water supplies.**

5. **Solid, liquid, gaseous and industrial waste discharges and/or disposal from septic tanks and/or sewers shall not contaminate land, air, and water resources.**

8. **The City shall also ensure that its drinking water supply continues to conform with the Safe Drinking Water Act.**

9. **The City shall meet all applicable standards relating to air quality, water quality and noise pollution.**

11. **All future development within the unincorporated portion of the Florence Urban Service Boundary shall be coordinated with the State Department of Environmental Quality to insure that the development will not degrade the North Florence Dunal Aquifer, negatively impact the beneficial uses of the water resource, or violate drinking water standards. The City of Florence and Lane County will coordinate their respective roles through a Joint Management Agreement.**

12. **Lane County and the City of Florence shall develop scientifically-based standards and a regular testing program to determine if sewage from septic tanks is entering water supplies. A system to spot isolated problems and correct them as soon as possible will be put in place. Such a system may assure safe water and prevent the need for health related annexations.**

The Code amendments in Ordinance No. 7-08 are consistent with these objectives and policies in Chapter 6 of Realization 2020 because the amendments will eliminate the increase of development potential within the UGB beyond what has been determined to be the carrying capacity in the North Florence Dunal Aquifer Study, September 1987, and described in detail in these findings. There is concern about contamination of the groundwater.

> City of Florence Water Facilities Plan, September 1999
> "Because groundwater is present at shallow depths (less than 50 feet) and the dunal sands have high permeability, it is likely that an accidental release of contamination at the surface would result in groundwater contamination." (Water Facilities Plan, Page ES-9)
>
> "Several freshwater lakes are found within the Florence area, many of which are used for recreation. Clear Lake, one of the largest, is used as a drinking water source for the Heceta Water District, north of the city. The lake is under consideration as a potable water source for the city as well. The city currently obtains is drinking water from wells. Because the soil is highly permeable in this area, these lakes could be subject to contamination if septic tank drain fields are improperly sited or designed." (Water Facilities Plan, Page 2-4)

The Lane Code Chapter 10 amendments are consistent with the objectives and policies in Chapter 6 of Realization 2020 for this reason and for the following reasons:

- The proposed amendments maintain the quality of water resources through control of waste and process discharges from future development on septic systems.
- The amendments are coordinated among the City, Lane County and DEQ and thus support regional efforts to study and control where necessary environmental pollution through compliance with state and federal standards.
- The amendments ensure that the drinking water supply in the UGB continues to conform with the Safe Drinking Water Act.
- Future levels of development within the unincorporated portion of the Florence UGB will be coordinated with the State DEQ to ensure that the development will not degrade the North Florence Dunal Aquifer, negatively impact the beneficial uses of the water resource, or violate drinking water standards.
- Through this adoption process, the City of Florence and Lane County will coordinate their respective roles through the adopted Joint Management Agreement.

Chapter 11, Utilities and Facilities

Wastewater Collection and Treatment

Goal : To provide cost effective collection and treatment of wastewater consistent with projected population growth and development needs. (Florence Realization 2020 Comprehensive Plan, page 101)

The proposal is consistent with this goal because the proposed amendments will ensure that properties are connected to the City's wastewater system as the need arises. In the interim, prior to annexation and connection to the municipal system, the proposed code amendments ensure that the number of additional septic systems will not increase. Lane county has adopted a twenty year population forecast for city of Florence, consistent with this goal.

Water System Supplies and Needs
Goal : To continue to provide an adequate supply of potable water for domestic, business, and industrial needs, as well as sufficient water for fire protection, all in a cost effective manner. (Florence Realization 2020 Comprehensive Plan, page 102)

The proposal is consistent with this goal because it will allow the City to continue to provide an adequate supply of potable water for domestic, business, and industrial needs, as well as sufficient water for fire protection, all in a cost effective manner.

Chapter 14, Urbanization

Goal: To provide for an orderly and efficient transition from County/rural land uses to City/urban land uses.

Annexation Policies

1. **Unless necessitated by a health hazard as determined by state law, the City will only annex property when requested to do so by a property owner, in accordance with the processes prescribed by state law existing at the time of annexation.**

2. **Property owners within the North Florence Dunal Aquifer who are also within the Urban Growth Boundary who wish to either (1) develop or (2) redevelop must first annex to the city and hook up to the city's sanitary sewer service unless they obtain a special exemption from the City Council. The North Florence Dunal Aquifer oundary is delineated in the EPA Resource Document "For Consideration of the North Florence Dunal Aquifer as a Sole Source Aquifer," EPA 910/9-87-167, September 29, 1987, Comprehensive Plan Appendix 5.**

3. **The City will not provide sewer service outside the City limits. To obtain sewer service, the property must first annex to the city.**

4. **Annexation of lands within the UGB outside City limits shall be based on consideration of:**

   a. **orderly, economic provision for public facilities and services;**

b. conformance with the acknowledged Florence Comprehensive Plan; and
c. consistency with state law.

5. The City will send a referral requesting comments on annexations to Lane County. The comments submitted will be considered in any action taken on the annexation request and will become part of the public record of the proceeding.

8. As a matter of public policy, Lane County and the City of Florence share a substantial interest in development within the Urban Growth Boundary. Development within the Urban Growth Boundary shall require annexation in order to receive a full range of urban services provided by the City of Florence. However, it is also recognized that until annexation Lane County will retain primary permitting responsibility for those lands.

The amendments are consistent with these Comprehensive Plan policies because they provide for an orderly and efficient transition from County/rural land uses to City/urban land uses by limiting the further division of lots in the UGB. In addition, the amendments support City Comprehensive Policy to:

- Not provide sewer service outside the City limits until property receives annexation in order to receive sewer service.

- Annex lands within the UGB outside City limits based on consideration of orderly, economic provision for public facilities and services; conformance with the acknowledged Realization 2020 Plan; and consistency with state law.

- Require that development within the UGB require annexation in order to receive a full range of urban services from the City of Florence; and, until annexation, Lane County will retain primary permitting responsibility for those lands.

OREGON REVISED STATUTES AND ADMINISTRATIVE RULES

ORS 197.628
Periodic review; policy; conditions that indicate need for periodic review. (1) It is the policy of the State of Oregon to require the periodic review of comprehensive plans and land use regulations in order to respond to changes in local, regional and state conditions to ensure that the plans and regulations remain in compliance with the statewide planning goals adopted pursuant to ORS 197.230, and to ensure that the plans and regulations make adequate provision for economic development, needed housing, transportation, public facilities and services and urbanization.

ORS 197.629
Schedule for periodic review; coordination.

ORS 197.633
Two phases of periodic review; rules; appeal of decision on work program; schedule for completion; extension of time on appeal.

ORS 197.644
Modification of work program; commission jurisdiction and rules.

> **(1) The Land Conservation and Development Commission may direct or, upon request of the local government, the Director of the Department of Land Conservation and Development may authorize a local government to modify an approved work program when:**
>
> **(a) Issues of regional or statewide significance arising out of another local government's periodic review require an enhanced level of coordination;**
>
> **(b) Issues of goal compliance are raised as a result of completion of a work program task resulting in a need to undertake further review or revisions;**
>
> **(c) Issues relating to the organization of the work program, coordination with affected agencies or persons, or orderly implementation of work tasks result in a need for further review or revision; or**
>
> **(d) Issues relating to needed housing, employment, transportation or public facilities and services were omitted from the work program but must be addressed in order to ensure compliance with the statewide planning goals.**
>
> **(2) The commission shall have exclusive jurisdiction for review of the evaluation, work program and completed work program tasks as set forth in ORS 197.628 to 197.650. The commission shall adopt rules governing standing, the provision of notice, conduct of hearings, adoption of stays, extension of time periods and other matters related to the administration of ORS 197.180, 197.245, 197.254, 197.295, 197.320, 197.620, 197.625, 197.628 to 197.650, 197.712, 197.747, 197.840, 215.416, 227.175 and 466.385.**
>
> **(3)(a) Commission action pursuant to subsection (1) or (2) of this section is a final order subject to judicial review in the manner provided in ORS 197.650.**
>
> **(b) Action by the director pursuant to subsection (1) of this section may be appealed to the commission pursuant to rules adopted by the commission. Commission action under this paragraph is a final order subject to judicial review in the manner provided in ORS 197.650. [1991 c.612 §6; 1997 c.634 §1; 1999 c.622 §5]**

The amendments are consistent with Oregon Revised Statutes pertaining to periodic review work tasks because DLCD approved the City's Periodic Review Work Program on November 3, 1995 and approved revisions to the Work Program on March 20, 1997, and left the Work Program Completion Date, "Open."

OAR Chapter 660, Division 25: Periodic Review

The amendments are consistent with Oregon Administrative Rules pertaining to periodic review work tasks because DLCD approved the City's Periodic Review Work Program

on November 3, 1995 and approved revisions to the Work Program on March 20, 1997, and left the Work Program Completion Date, "Open."

OAR-025-0080
Citizen Involvement

(1) The local government must use its acknowledged or otherwise approved citizen involvement program to provide adequate participation opportunities for citizens and other interested persons in all phases of the local periodic review. Each local government must publish a notice in a newspaper of general circulation within the community informing citizens about the initiation of the local periodic review. The local government must also provide written notice of the initiation of the local periodic review to other persons who, in writing, request such notice.

(2) Each local government must review its citizen involvement program and assure that there is an adequate process for citizen involvement in all phases of the periodic review process. Citizen involvement opportunities must, at a minimum, include:

> **(a) Interested persons must have the opportunity to comment in writing in advance of or at one or more hearings on the periodic review evaluation. Citizens and other interested persons must have the opportunity to present comments orally at one or more hearings on the periodic review evaluation. Citizens and other interested persons must have the opportunity to propose periodic review work tasks prior to or at one or more hearings. The local government must provide a response to comments at or following the hearing on the evaluation.**
>
> **(b) Interested persons must have the opportunity to comment in writing in advance of or at one or more hearings on a periodic review work task. Citizens and other interested persons must have the opportunity to present comments orally at one or more hearings on a periodic review work task. The local government must respond to comments at or following the hearing on a work task.**

The amendments to comply with Periodic Review Work Task 8 are consistent with this OAR because:

- The adoption of the Realization 2020 Comprehensive Plan was the result of a multi-year effort on the part of the City Council, Planning Commission, Citizen Advisory Committee, and the general public. Notice of the proposed amendments to the Code were published four times in the Register Guard and posted on the County web site and written notice of the initiation of the proposal and its revisions throughout the process to all persons who requested such notice.

- The County used its acknowledged citizen involvement program to provide adequate participation opportunities for citizens and other interested persons in all phases of the local periodic review.

- The City reviewed its citizen involvement program and assured that there was an adequate process for citizen involvement in all phases of the periodic review process. Citizen involvement opportunities included:

    - Interested persons had the opportunity to comment in writing in advance of or at all hearings on the periodic review evaluation. Citizens and other interested persons had the opportunity to present comments orally at all hearings on the periodic review evaluation. Citizens and other interested persons had the opportunity to propose periodic review work tasks prior to or at one or more hearings. The City provided a response to comments at or following the hearing on the evaluation.

    - Interested persons had the opportunity to comment in writing in advance of or at one or more hearings on a periodic review work task. Citizens and other interested persons had the opportunity to present comments orally at all hearings on the periodic review work tasks. The City responded to comments at or following the hearing on the work task.

- County consideration and adoption of the amendments includes consideration of the city efforts at citizen involvement and utilized the adopted Lane County citizen involvement program as described under the Goal 1 findings, below.

ORS 197.175: Cities' and Counties' Planning Responsibilities; Rules on Incorporations; Compliance with Goals.

(2) Pursuant to ORS Chapters 195, 196 and 197, each city and county in this state shall: (a) Prepare, adopt, amend and revise comprehensive plans in compliance with goals approved by the commission;

The proposal is consistent with ORS 197.175 because the findings of fact conclude that the proposed Code revisions are in compliance with the policies in the Florence Realization 2020 Comprehensive Plan, and that the process was coordinated between the city and county, to meet the goals approved by the commission. Statewide Planning Goals 1, 2, 6, 11, 12 and 14 apply to this proposal. A finding of "Not Applicable to this Proposal" is incorporated into these findings for all other Statewide Planning Goals not specifically cited below.

STATEWIDE PLANNING GOALS

Goal 1: Citizen Involvement [OAR 660-015-0000(1)]

Citizens shall have the opportunity to be involved in the phases of the planning process as set forth and defined in the goals and guidelines for Land Use Planning, including Preparation of Plans and Implementation Measures, Plan Content, Plan Adoption, Minor Changes and Major Revisions in the Plan, and Implementation Measures.

The proposal is consistent with Statewide Planning Goal 1 because notice and referral of the proposal and opportunity to comment and provide testimony at upcoming hearings was provided in a timely manner. Citizens were given the opportunity to comment on the proposal in writing or in person at all four public hearings, before the Planning Commission and before the County Board of Commissioners.

Referrals were mailed to agencies and interested parties and a legal ad published in the Register Guard, a newspaper of general circulation, on October 29, 2008 for the planning commission hearing, and on November 5, 2008 for the Board hearing. Direct mailing of a notice required by Ballot Measure 56 notifying all affected property owners in the Urbanizing Combining District that the proposed amendments could affect the permissible use of their property and other properties was mailed on October 30, 2008.

The Lane County Planning Commission held a work session on November 4, 2008 and public hearing on November 18, 2008; heard public testimony; and recommended adoption of the proposed amendments.

The Lane County Board of Commissioners held a work session and public hearing on November 26, 2008 and heard public testimony; and deliberated and approved the amendments on December 10, 2008.

Goal 2: Land Use [OAR 660-015-0000(2)]

All land-use plans and implementation ordinances shall be adopted by the governing body after public hearing and shall be reviewed and, as needed, revised on a periodic cycle to take into account changing public policies and circumstances, in accord with a schedule set forth in the plan. Opportunities shall be provided for review and comment by citizens and affected governmental units during preparation, review and revision of plans and implementation ordinances.

The proposal is found to be consistent with Goal 2 because the proposed revisions to the Code were adopted by the Lane County Board of Commissioners after public hearing and taking into account changing public policies and circumstances, in accordance with the City's DLCD Periodic Review Notice; opportunities were provided for review and comment by citizens and affected governmental units during preparation, review, and revision of the Code. Citizens and affected governmental units were given opportunity to comment and written testimony in the record was considered by the Board along with recommendation from the county planning commission prior to adoption of the amendments.

Goal 6: Air, Water And Land Resources Quality [OAR 660-015-0000(6)]

To maintain and improve the quality of the air, water and land resources of the state.

All waste and process discharges from future development, when combined with such discharges from existing developments shall not threaten to violate, or violate applicable state or federal environmental quality statutes, rules and standards.

The Lane Code amendments are consistent with Statewide Planning Goal 6 because they will maintain and improve the quality of water resources in the Florence UGB; and they will ensure that, by restricting lot divisions in the UGB North Florence Dunal Aquifer interface, city compliance with relevant plan policies addressing the Safe Drinking Water Act or other federal or state environmental quality statutes, rules, and standards is met.

Goal 11: Public Facilities and Services [OAR 660-015-0000(11)]

To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

The proposal is consistent with Goal 11 because the policies and North Florence Dunal Aquifer Map apply to properties within the Florence UGB that will be served in accordance with City facility management consistent with the Comprehensive Plan and for areas now outside the city, with annexation and service policies. Key facilities and services can be provided to the areas upon development, including water, wastewater, stormwater, and transportation, consistent with the policies in the Florence Realization 2020 Comprehensive Plan.

Goal 14:Urbanization [OAR 660-015-0000(14)]

To provide for an orderly and efficient transition from rural to urban land use, to accommodate urban population and urban employment inside urban growth boundaries, to ensure efficient use of land, and to provide for livable communities.

The Code amendments are consistent with Goal 14 because, by limiting future lot divisions in the Interim Urbanizing Combining District, the amendments ensure efficient use of land by maintaining a high level of groundwater quality and providing for a livable community. The efficient transition from rural to urban land use is enhanced by consistency for long term planning.

IV. CONCLUSION

The proposal to adopt Periodic Review amendments to Lane Code Chapter 10 for application within the urbanizable combining district outside city limits and within the Florence urban growth boundary is consistent with applicable Florence Realization 2020 Comprehensive Plan policies. The Code amendments are also consistent with applicable criteria in Lane Code, Oregon Revised Statutes and Administrative Rules, as demonstrated in these findings of fact.

Attachment 4

ORD. NO. PA 1249 09.06
P.A. NO.
DATE: EXHIBIT NO. 59

Michael J. Lilly
Attorney at Law
6600 SW 92nd Avenue, Suite 280
Portland, OR 97223

Telephone: 503-294-0062
Facsimile: 503-452-4433
Email: mikelilly@michaeljlilly.com

February 3, 2010

Lane County Board of Commissioners
c/o Stephanie Schulz
Lane County Planning Department
125 East 8th Avenue
Eugene, OR 97401

By Facsimile and Email
Re: Heceta Lake Joint Venture Comments on City of Florence 2020 Plan and IGA

Dear Commissioners:

I am writing on behalf of the Heceta Lake Joint Venture, which has developed "The Reserve" subdivision in the northern part of the Florence UGB. We think the most recent version of the Florence 2020 Plan and IGA with the County are substantial improvements over the prior versions, but some problematic sections from the old versions remain. We have two particular concerns.

I. The City Plan Contains Inaccurate Findings.

The City proposes a "Background" finding in exhibit B that:

> "Based on scientific evidence at this time (2009), septic systems, whether failing or not, pose a threat to the North Florence Dunal Aquifer, the sole source of drinking water in the UGB."

This generalization is repeated several times in the Plan but it is simply incorrect. There is no support in the scientific literature or the two sources cited by the City for the idea that properly functioning septic tanks installed on appropriately sized lots pose a threat to the North Florence Dunal Aquifer.

Even worse is the City finding on page 24 of exhibit A. According to the City:

> "The EPA states that the aquifer is 'highly susceptible to contamination' from septic systems (not just failed systems)..."

In fact the EPA makes no such statement. The "highly susceptible to contamination" phrase is used by the EPA to refer to contamination from surface activity, and nowhere does the EPA state or imply that the aquifer is highly susceptible to contamination from septic systems that have not failed. The full quote from the EPA, in proper context, appears later on page 24 of the plan document.

Neither the North Florence Dunal Aquifer nor the EPA resource document support the City's proposed findings. The City has not pointed to any quote from the cited material that supports these findings. In fact the North Florence Dunal Aquifer study reached the opposite conclusion. It focuses on establishing density development restrictions that allow septic systems to be used safely, so that they do not pose a threat to the aquifer.

Quotes From North Florence Dunal Aquifer Study 1982

Page	Quote
99	Thus, conventional low-head (on-site septic) systems could be established at a density of 2.9 dwelling units per acre and sand filter systems might approach five per acre before the 58 lb/acre/year limit is reached. This calculation applies only to the unsewered areas of the North Florence aquifer that are not tributary to Clear Lake.
105	22. Based on the planning standard of 5.0 mg/L nitrate-nitrogen calculations indicate an additional loading of 58 lbs. per acre per year nitrate-nitrogen will not exceed this value using a stirred tank model. This translates to 2.9 d.u. per acre with on-site systems using loading rates of 20 lbs. per d.u. per year.
107	As applied to areas outside the Clear Lake Watershed and beyond the Urban Service Boundary, it is not clear that treatment or removal would provide more benefits that (sic) an adequately functioning on-site system.
108	General Aquifer: For the remainder of the aquifer, the nitrate-nitrogen planning limit of 5.0 mg/L is applicable and implies that planning alternatives are unnecessary after revision of the regional rule.

In contrast to the City's findings, an EPA report to Congress has encouraged the use of septic systems. A full copy of the report is in the record and it is quoted below.

QUOTES FROM EPA RESPONSE TO CONGRESS ON USE OF DECENTRALIZED WASTEWATER TREATMENT SYSTEMS – April 1997

Quote

Pg. i i Benefits of Decentralized Systems
Protects Public Health and the Environment. Properly managed decentralized wastewater systems can provide the treatment necessary to protect public health and meet water quality standard, just as well as centralized systems. Decentralized wastewater systems can be sited, designed, installed and operated to meet all federal and state required effluent standards. Effective advanced treatment units are available for additional nutrient removal and disinfection requirements. Also, these systems can help to promote better watershed management by avoiding the potentially large transfers of water from one watershed to another that can occur with centralized treatment.

Additional Benefits. Decentralized systems are suitable for ecologically sensitive areas (where advanced treatment, such as nutrient removal or disinfection is necessary).

Pg. 4 Managed decentralized wastewater systems are viable, long-term alternatives to centralized wastewater facilities where cost-effective, particularly in small and rural communities.

II. New Plan Policy #7 is Ambiguous.

New policy #7 contains ambiguous language that could be read to require annexation as a condition for any development within the UGB.

"Development within the Urban Growth Boundary shall require annexation in order to receive a full range of urban services provided by the City of Florence.

We suggest:

"Development on property within the Urban Growth Boundary shall not receive the full range of urban services from the city of Florence unless the property is annexed into the City of Florence."

The findings from the City are unnecessary and inaccurate. The County can adopt the proposed testing program without the City's inaccurate and inflammatory statements.

Michael J. Lilly

cc: Mike Van

FAX TRANSMISSION

Michael J. Lilly
6600 SW 92nd Avenue
Suite 280
Portland, OR 97223
503-294-0062
Fax: 503-452-4433

To:	Lane County Board of Commissioners c/o Stephanie Schulz Lane County Planning Department	**Date:**	Wednesday, February 3, 2010
Fax #:	(541) 682-3947	**Pages:**	4 (including this cover sheet)
From:	Michael J. Lilly		
Subject:	Heceta Lake Joint Venture Comments on City of Florence 2020 Plan and IGA		

COMMENTS:

Date: 1-30-10

From: Florence V Holm
983 Old Orchard Ln
Springfield, Ore 97477

ORD. NO. PA1249 & 7-08
P.A. NO.
DATE: EXHIBIT NO. 58

Regarding Department File: PA 08-5142 (Florence, Sandra Belson) Staff: Stephanie Schulz
Ordinance No. PA 1249 & Ordinance No. 7-08

Comments:

No, I'm against proposal.

It would only increase my taxes + I like it as is

Return to: Stephanie Schulz, Planner

Lane County Land Management Division
Public Service Building
125 E. 8th Avenue
Eugene, OR 97401

January 31, 2010

ORD. NO. PA 1289 & 7-08
P.A. NO.
DATE: 1-31-10 EXHIBIT NO. 37

Lane County Land Management Division
Public Service Building
125 E. 8th Ave
Eugene, OR 97401

SUBJECT: PA 08-5142 ORDINANCE NO. 7-08 REVISIONS TO LANE CODE CHAPTER 10

This letter is in response to the recent notice I received concerning revisions to Lane Code Chapter 10. I live in the Florence UGB and own a lot adjacent to my home which is currently considered to be a buildable lot. I strongly object to the revisions to Chapter 10.122-31 Land Uses. The revisions to this part of the Lane Code will severely reduce the value of my property(s) as well as many others in my area (Kla-Ha-Nee and Heceta Beach). My specific objections are itemized below:

1. The revision will turn my currently buildable lot into an unbuildable lot. As a result, it is unlikely that I would be able to sell the property should I need the income. There are many property owners with lots in the UGB who would be similarly affected. Any further decreases in property values would only exacerbate the severe reductions that we have all seen in our property values. As a result, this revision would create a financial hardship for those of us in the UGB who are retired and living on a fixed income.

2. The revision would prevent me from remodeling or expanding my home unless an exception is made by the Florence City Council. Since there are no guidelines for granting these exceptions, property owners have no assurances that they would be granted in a fair and equitable manner.

3. As written, the revision is vaguely worded. For example, does a "septic system" consist of a septic tank and its leach field or just the septic tank itself? What about septic pumps?

4. If my existing septic tank/lines/pump fails, it is not clear that I would be able to repair or replace it.

5. The City of Florence has made it clear that it wants to annex the area in the UGB that is north of the city. Those of us in the affected area have all heard that the city will not "force" us to annex; however, this revision appears to be a disingenuous move on the part of the City of Florence to force us into annexation by requiring us to have a sewer system. The costs associated with extending the sewer trunk lines to the UGB northern area and then individual hook-ups would be substantial and possibly prohibitive to many home/lot owners in the affected area.

In closing, during this time of severe economic crisis, rising taxes, lost income, it is very disheartening to see such a change being proposed by our local government leaders. Many of us have already seen our retirement accounts cut in half, our property values significantly reduced, and our quality of life in our community diminished. For the reasons stated above, I urge you to **not approve** the proposed revisions to Lane Code Chapter 10. Thank you for considering my comments.

Sincerely,

Gail M. Good

Gail M. Good
88714 Shoreline Drive
Florence, OR 97439

REC'D FEB 02 2010

Date: 1/31/2010

From: Gail M. Good
88714 Shoreline Drive
Florence OR 97439

Regarding Department File: PA 08-5142 (Florence, Sandra Belson) Staff: Stephanie Schulz
Ordinance No. PA 1249 & Ordinance No. 7-08

Comments: Please see attached comments.

Return to: Stephanie Schulz, Planner

Lane County Land Management Division
Public Service Building
125 E. 8th Avenue
Eugene, OR 97401

Date: 1/26/10

From: JUDITH & MICHAEL SCHWARTZ
04899 HECETA BEACH RD.
FLORENCE, OR 97439

REC'D JAN 28 2010

ORD. NO. PA 1249 & 7-08
P.A. NO.
DATE:
EXHIBIT NO. 56

Regarding Department File: PA 08-5142 (Florence, Sandra Belson) Staff: Stephanie Schulz
Ordinance No. PA 1249 & Ordinance No. 7-08

Comments:

When the issue of annexation by the City of Florence of property on the north side of Heceta Beach Road was first mentioned, we were assured that people would not be forced to hook up to a sewer system unless there was septic system failure. However, with the adoption of ordinances No. PA 1249 and No. PA 7-08 the rules will change. This would allow the city to forcably annex those of us who chose to live outside the city boundaries. Florence City Government cannot be trusted in the promises they make.

There is a significant population of retirees in Florence to which we belong who live on fixed incomes. We would not be able to afford the expense of sewer hookup, increased taxes etc.

Therefore, we strongly disagree with the proposal to forcably annex land outside the urban growth boundary. If we had wanted to live within the city limits we would have done so.

Michael M. Schwartz

Return to: Stephanie Schulz, Planner

Lane County Land Management Division
Public Service Building
125 E. 8th Avenue
Eugene, OR 97401

EGR & Associates, Inc.
Engineers, Geologists and Surveyors

2535B Prairie Road
Eugene, Oregon 97402
(541) 688-8322
Fax (541) 688-8087

May 14, 2009

RECEIVED AT HEARING
P.A. NO. PA 08 49 & 7.08
DATE: _____ EXHIBIT NO. 35
Submitted by D. Stotter, already in Record

Mayor Phil Brubaker
City Of Florence
Florence City Hall, 250 Highway 101 N.
Florence, OR 97439

Mike Lilly, Attorney
6600 SW 92nd Avenue, Suite 280
Portland, OR 97223

RE: "The Reserve" Subdivision, Florence, North Florence Dunal Aquifer

Dear Mayor Brubaker and Mr. Lilly:

The City of Florence is using the North Florence Dunal Aquifer Study as a basis for taking action on septic tank usage within the Urban Growth Boundary. As requested by Mike Lilly and Heceta Lake Joint Venture, the owners of "The Reserve" subdivision, I am providing a discussion of the issues and specific clarifications based on the results of the North Florence Dunal Aquifer Study and the issues raised by the City of Florence.

I am the principal author of the North Florence Dunal Aquifer Study. In that capacity I collected the field data and samples, had field samples analyzed at a laboratory (Lane County's water lab), coordinated subcontractors who installed wells and piezometers, worked with OSU's geophysics team to seismically and electrically probe the aquifer, worked with a subcontractor who digitally modeled the aquifer, analyzed all the various data and sub-study results, and compiled and wrote the final report. I had significant review and oversight by Mr. Harry Youngquist, the County Public Health Engineer, and Mr. Garrett Rosenthal, the Water Quality Specialist with the Lane Council of Governments. The study was funded in part by an EPA 205j grant and was specifically designed to address the issue of nitrates in groundwater from septic tanks and other sources.

The study was set up to be conservative in its outcomes, so any recommendations would carry with them a safety factor. Specifically, with respect to nitrates, the State of Oregon DEQ target levels of 5 mg/L were selected which are ½ the US Environmental Protection Agency standards of 10 mg/L.. The North Florence Dunal Aquifer Study recommended 2.9 du per acre using this

conservative 5 mg/L target value. This further presumed the entire area would be built out at that density. Actually building at that density is not feasible given wetlands, ephemeral lakes, open dunes, and the general human nature which always has some dwellings on larger parcels. Using the DEQ standard yields a 100% safety factor from the 10 mg/L nitrate level that is the EPA limit. The North Florence Dunal Aquifer Study data indicates the area does not come close to this standard.

The numerous wetlands, open water bodies, and ephemeral lakes and ponds can have a net positive effect on nitrate levels. These wetlands and water bodies are a reflection of the top of the water table. Most of these wet areas in the Florence area are nutrient starved. Thus, wetlands act as active nitrate removal areas where groundwater can be "stripped" of some of its nitrogen load as it moves through these areas.

One of the tenets of environmental protection is that it is the concentration of a particular constituent which can cause that constituent to be considered a contaminant. For example, wild animals collectively eliminate waste by the ton daily, but because it is widely dispersed the impact is not harmful, and is in fact beneficial. Septic tanks and drain fields are a dispersed disposal method compared to centralized municipal treatment and disposal systems. Centralized systems can put the concentrated waste from thousands of home into an estuary at a single point, for example, which may or may not cause problems. Centralized systems can be significantly more expensive to construct, manage, and operate (even compared to systems where the management of individual septic tanks and drain fields is done by the municipality or local government). Therefore, onsite systems may in a number of instances be preferable to centralized treatment plants, as long as the concentration of the systems is not too great. Septic tanks do not necessarily pose a risk greater than other treatment and disposal methods. Municipal treatment systems are not necessarily significantly better than septic tanks and drain fields, and for some situations or parameters, they may even be less protective. A number of documents from the EPA and others are attached electronically describing the pros and cons of decentralized versus centralized systems.

Concerns that in the North Florence Dunal Aquifer Study the sand aquifer is described as a sensitive aquifer are not in reference to the nitrate or to effluent influences. Rather, the sensitivity is with regard to surface contamination from spills and other releases of contaminants on the ground surface, because the ground is so porous. Such unpredictable incidents such as a spill from a tanker truck, people pouring waste products onto porous soils, spillage from the storage of water transportable constituents, the decomposition of materials in high concentration, and others, are examples of the kind of things to which that this aquifer is sensitive. This sensitivity will exist whether onsite sewage systems or a municipal system is in use. This aquifer is in some ways is less sensitive than the Willamette Valley alluvial aquifer since it has high

SCOPE NEWSLETTER

NUMBER 63 **January 2006**

Special issue
[illegible]

This is a review of a number of papers covering research knowledge and needs regarding nutrient contamination from septic tanks and other decentralised sewage treatment systems.

The Scope Newsletter

The SCOPE Newsletter is produced by the Centre Européen d'Etudes des Polyphosphates, the phosphate industry's research association and a sector group of CEFIC (the European Chemical Industry Council).

The SCOPE Newsletter seeks to promote the sustainable use of phosphates through recovery and recycling and a better understanding of the role of phosphates in the environment.

The SCOPE Newsletter is open to input from its readers and we welcome all comments or information. Contributions from readers are invited on all subjects concerning phosphates, detergents, sewage treatment and the environment. You are invited to submit scientific papers for review.

The SCOPE NEWSLETTER is produced by CEEP - a sector group of CEFIC,
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www.ceep-phosphates.org
The SCOPE Newsletter is circulated, free of charge, electronically :
to receive it or to unsubscribe:
http://www.ceep-phosphates.org/subscribe.htm

cefic

CEEP
Centre Européen d'Etude des Polyphosphates

Septic tanks

Review of research into nutrient release from autonomous sewage treatment systems

An overview of existing knowledge regarding nitrogen and phosphorus releases from septic tanks and autonomous sewage treatment systems shows the significant differences between the behaviours of these two nutrients. Nitrogen is only retained in septic tanks to a small extent, and once tank effluent is infiltrated into soil will tend to be converted to nitrates which are then very mobile and move with underground waters. Phosphorus, on the other hand, is significantly retained in septic tanks (up to 48%) and then precipitated or adsorbed in soil, so that significant contamination rarely moves more than a few metres from septic tank infiltration.

The authors assess available research regarding the operation of different types of autonomous or decentralised sewage systems, including conventional septic tank / soil absorption systems, but also innovative new systems such as grey/toilet water separate management systems, soil based and wetland systems.

Nitrogen contamination

Raw human sewage contains 2 – 8 kg total N/year. Traditional septic tanks are estimated to achieve 40% reductions in sludge volume, 60% reduction in biological oxygen demand (BOD), 70% retention of suspended solids, and 48% (Pell and Nyberg 1989) – 57% (Tetra tech 2002) which will in time need to be pumped for disposal. Settling and periodic pumping however is estimated to only remove 5 – 15% in inflow total nitrogen.

Soil adsorption can then remove a further 20% of total nitrogen, as ammonium, but this may be reversible when aerobic conditions occur and the ammonium is converted to soluble and water transportable nitrate.

Nitrogen from septic tank outflows can thus move to groundwater in a matter of days, and may tend to move mainly through shallow aquifers, posing an immediate risk to shallow wells and to surface waters.

Phosphorus from septic tanks

Phosphorus in septic tanks and in their outflow behaves completely differently from nitrogen. Firstly, a significant proportion of inflow phosphorus in septic tanks is effectively removed by settling and subsequent pumping of septic tanks (48% - 57%, see above).

Phosphorus in septic tank outflow is 85% soluble orthophosphate, with some organic and inorganic particulate phosphorus attached to suspended solids. The latter will be retained in soil. The soluble orthophosphate can be retained in soils both by precipitation to mineral phases by ions present either in the septic tank effluent or in the soil (iron, aluminium, calcium ...), or can be adsorbed to soil colloids (formation of a strong chemical bond between orthophosphate and clay minerals).

Typical mass balance studies have shown that 65% - 95% of the septic tank effluent phosphorus is found in soils within a few metres of the outflow point, even after years of septic tank operation. The "plume" of phosphorus concentrations downstream of septic tank outflow is estimated by several studies to develop 10x – 100x more slowly than the general plume of contamination.

Aulenbach et al. 1981, estimated 85% overall removal of phosphorus from sewage in septic tank systems (including soil retention, and assuming 5% of systems failing) around Lake George, New York State.

Previous research

Several authors, many cited by Gold in this review, or elsewhere, have previously confirmed that the risks of phosphorus contamination of wells or surface waters from septic tank outflow are very limited.

* **Johnson & Atwater 1988** used 3m long experimental channels of different soil materials to test removal of different components of raw sewage, showing 96-99% removal of soluble phosphate with different soil types (3 loamy sands, 3 sands), whereas certain of the soil types tested removed only ¼ of the inflow inorganic nitrogen.

* **Robertson (2000, see SCOPE Newsletter n° 44),** in 2-year field experiment using a lysimeter containing natural sandy soils, showed that septic tank effluent soluble phosphate levels were brought down below the detection limit (< 0.05 mgP/l). Only around 0.2% of soil iron had been used, forming stable coatings on the soil particles, suggesting that the system would remain effective for many years.

* **Harman et al 1996 and Robertson & Harmann 1999** studied the effluent plumes of 3 septic tank systems which had served a 200-pupil school (Langton) for nearly 50 years and a seasonal 200-person campsite for 5 and for 25 years (2 outflows), in Ontario, Canada. They reported that even after these long operational periods for large septic systems, around 85% of phosphate was being retained in the first 30 cm of soil around the outflows (vadose layer). Phosphate above background levels was detectable up to 75m away from the older system in a situation with mobile groundwater, but not beyond. They concluded that over long periods of use of septic tanks, long-term migration of phosphorus in the ground water zone may occur.

* **Zanini, Robertson et al. 1998** reported results from monitoring of the Langton school plume (as above) and of three domestic septic tank systems also in Ontario: Cambridge operational for around 20 years, Muskoka ten years, Harp Lake 30 years. They again found high phosphorus removal within the first 10-30 cm of soil around septic tank outflow infiltration pipes. Based on soil iron contents, they

estimated that it would take around 35 years to saturate the first 25 cm around a septic tank outflow, coherent with the 85% phosphorus retention in the 30 cm vadose zone observed for the Langton school site above.

* **Robertson et al. 1991** had reported analyses of the plumes of the Cambridge and Muskoka domestic septic tanks cited above. The plume at the Cambridge site was 130m long and 10m wide, for soluble contaminants such as nitrate and sodium ions, but phosphate was observed only immediately beneath the infiltration field. The plume at Muskoka was 20m long, reaching nearby surface water, but again phosphate was not detectable in the ground water below the infiltration field, nor at any significant horizontal distance away from the infiltration zone.

* **Robertson 1995** reported further monitoring results from the Cambridge domestic septic tank site, Ontario, Canada, operational for around 20 years, indicating a pattern of slow but pervasive expansion, with a migration velocity of about 1m/year. This represents a reatrding factor of around 20, probably as a result of soil particle sorption of phosphate. Phosphate levels then stabilise at around 1 mgP/l in the plume. Analysis of dilution factors led to the conclusion that around 25% of septic tank effluent P continued to be attenuated in the valdose zone, whilst throughout the rest of the plume soil capacity for phosphate sorption is progressively saturated thereby allowing slow extension of the phosphate plume. It is suggested that the attenuation in the valdose zone is probably the result of mineral precipitation, most probably of calcium phosphates. Comparisons with work at other sites suggest that higher attenuation values are obtained at lower pH levels (acidic waste water or soil conditions).The extension rate of the phosphate plume at the Cambridge site meant that it has already reached piezometers situated 20m from the tank infiltration bed, the separation distance locally required between septic tank infiltrations and sensitive surface waters, indicating that this distance is inadequate where the soil offers poor P retention.

* **Robertson & Blowes 1995**, studied a septic tanks system serving a seasonal cottage for four years after installation, at Sudbury, Ontario. In this situation, on poorly buffered silt earth, an acid contamination plume developed in the ground, but with limited phosphate mobility (retardation factor > 10) and no phosphate migration significantly beyond the infiltration bed gravel layer over the study period.

* **Robertson et al. 1998** looked at 10 mature septic tank systems in Ontario, including the 6 cited above, plus in addition another campsite (Camp Henry, 18 year old system), a resort (Delawana, 10 years) and 2 further houses (Paradise, 25 years and Killarney, 10 years). They concluded that phosphate migration is 20 – 100 times slower than the extension of the plume for other soluble contaminants, such as nitrates, but may reach around 1 m/year. Six phosphate plumes of over 10m were identified in sandy soils, but phosphate plumes <3m long on acidic silt or clay rich soils. Ground water phosphate concentrations immediately below the septic tank outflows were significantly lower than septic tank effluent levels, suggesting 23-99% phosphorus retention in the vadose zone within 1m of outflow pipes.

* **Ptacek 1998** studied the plume from the Camp Henry campsite septic tank (see above), Ontario, situated on sand alongside the coast. He found phosphate concentrations higher than background (but low at < 0.02 mgP/l) up to 60m away from the septic tank in part of the soil ground water (non-surface groundwater with low oxygen levels). This shows that septic tank outflows can contribute phosphate to surface waters where septic tanks are relatively close to surface waters (< 100m) and in sand substrate (rather than soil) over an impermeable layer.

* **Jones and Lee 1979** stated for Wisconsin, USA, found no detectable phosphate contamination at 15 sampling points situated 10 – 100 m distant from a septic tank tile field, 4 years after starting its operation, concluding "No evidence for phosphate transport fro septic tank effluent was found in any of the monitoring wells".

* **Gilliom and Parmont 1983**, for eight 20-40 year old septic systems close to Pine Lake, Puget Sound, Washington, concluded: "movement of more than 1% of effluent P to the lake was rare" (despite

movement of diluted effluent commonly occurring). Chen 1988, New York concluded that all of 17 septic systems examined showed "good removal of orthophosphate".

* **Wieskel and Howes 1992** looked at nutrients from four different 10-75 year old septic tank systems situated close to Buttermilk Bay, Massachusetts, and concluded that approx. 61% of septic tank effluent nitrogen would reach the Bay water (10 – 100m down gradient from the septic tanks), but that only approx 0.3% of the effluent phosphorus would reach the Bay.

* **Reneau and Pettry 1976**, studied phosphorus movement in sandy loam coastal plain sols in Virginia, from two septic systems aged 4 and 15 years. They detected no soluble phosphorus in a slowly moving water table below the septic tank outflows (seasonally perched water table) and orthophosphate concentrations < 0.2 µg/l at points 3m distant from the outflows.

* **Reneau 1979**, in the Virginia coastal plain, studied transfer of contamination from 10 domestic septic tank systems (all > 12 years old) to an agricultural tile drain situated 11 – 19 metres from the tank outlflows. Also, sampling wells were drilled 1.5 – 17 m away from three of the septic tank systems. Variation in the soil phosphorus abatement capacity was found, with 99% of phosphorus being removed within 8m for two of the septic tank outflows, but only at 30m for the third. Mean phosphorus concentrations were lower in the sampling wells 13 – 17m away from the septic tank outflows than in the surface water receiving the tile drain outfall, and phosphorus was not detectable in the tile drain outflow (lower concentration than in the receiving water).

* **Reneau, Hagedorn and Degen 1989**, reviewing available literature, concluded that "the limited movement of P away from on site wastewater disposal systems (OSWDS) is well-documented" and that "Most field studies indicate that P contamination is limited shallow groundwaters adjacent to OSWDS and that P sorption continues under saturated conditions". The risk of phosphorus movement to surface waters is thus minimal.

* **Viraraghaven & Warnock 1976**, in Ottowa, Canada, analysed contaminants in groundwater samples immediately below a septic tank drainfield for a system which had been operating for three years. Most samples (14 out of 18) showed phosphate concentrations lower than the background groundwater, but some were 3-4 x higher.

* **Sawhney and Starr 1977**, used sampling tubles installed 15 – 120 cm below and 20 – 120 cm horizontally distant from a secptic tank outflow trench system. They concluded that soil 15-30 cm below the trench was continuing to remove most of the outflow phosphate after 6 years of septic tank operation, and that 60 cm of soil should "effectively remove phosphorus from septic system drainfields for a number of years and should allow only minimal additions to the groundwater". They also showed through alternate operation of 2 outflow trenches from the septic tank that the soil" regenerated" its phosphorus removal capacity: this is conform to laboratory experiments which show that soil phosphorus fixing capacity is increased by wetting – drying cycles.

* **Chen 1988** analysed contamination in groundwater samples at various distances from 17 different septic tanks systems situated near the shores of lakes in Northern and Eastern New York State. Of 45 sampling points, situated 0 – 3m below the surface and up to 100m distant from the septic tank outflows, only 4 showed phosphate concentrations > 0.1 mgP/l and the ten points > 40m distant all showed concentrations < 0.04 mgP/l. The author noted that several sites showed groundwater contamination near enough the lake edge for transfer to surface water to be possible and indicates that problems of nutrient and coliform bacteria transfer from septic tanks where their outflow is situated in rocky or sandy substrate over an impermeable layer.

* **Alhajjar et al. 1989**, compared nitrogen and phosphorus contamination of ground water for two sets of respectively 8 and 9 domestic septic tank systems, with households using in one case phosphate-based and in the other carbonate-based laundry detergents. They concluded that there was zero probability of more than 5% of phosphate reaching ground water in all cases with mean

phosphate transfer < 0.1 mgP/l in all cases. However, they found total nitrogen concentrations reaching groundwater of 39 and 69 mgN/l for the phosphate- and carbonate-detergent households respectively, concluding that the use of phosphate-based detergents led to substantially lower levels of nitrogen contamination. They conclude that the use of carbonate-built (P-free) detergent "exacerbates nitrogen leachate to ground water" with human health and environmental implications.

* **Alhajjar et al. 1990**, compared phosphate and nitrogen removal in lab-scale soil-filled columns simulating mound, new conventional and mature conventional septic tank soil drainfields, fed with septic tank effluents from households using phosphate-built or phosphate-free (zeolite built) laundry detergents. The columns fed with P-detergent effluent showed higher outflow phosphate levels, but on the other hand lower outflow nitrogen levels. The authors concluded that P-built detergents used in households served by septic tanks reduce nitrogen leaching to groundwater by a factor of 1.8 (new systems) to 2.1 (mature systems), and "slightly" increase phosphate leaching compared to households using zeolite based detergents. They suggest that this may be the result of precipitation of struvite (magnesium ammonium phosphate) or similar minerals because of higher available phosphate in the drainfield soil.

* **Woods, 1993**, studied the fate of phosphorus in a context where soil absorption of phosphorus was susceptible to be problematic, around Harp Lake, Ontario (180 km North-East of Toronto, see Zanini, et al. 1998 above): a thin heterogeneous till soil over acidic Precambrian shield bedrock. For one typical domestic septic tank dating from 1962, most of the phosphorus from 30 years use was found in the 14 cm soil layer below the tile-bed outflow. Phosphorus in the aquatic sediments at this and four other septic tank sites around Harp Lake showed mean phosphorus concentrations in the zone contaminated by the outflows with means 0.5 – 13x and maximums 0.3 – 38x background levels (see p155). The author concludes that septic tank phosphorus could be reaching the lake in 3 out of 5 cases, but in only in one case were mean contaminated zone phosphorus concentrations >20 µgP/l.

Conclusions

It thus appears clear that phosphorus contamination from septic tanks is limited, because much of the phosphorus is retained in the septic tanks, and because that released in the outflow is then retained in soil, often in the soil immediately around the discharge infiltration, thus resulting in only a very low proportion (<1%) of phosphorus in septic tank inflow being susceptible to reach surface waters. There may however be concern where septic tanks are situated close to (< 10m) surface waters or water courses in areas of calcareous sandy soil.

"Research needs in decentralized wastewater treatment and management: a risk-based approach to nutrient contamination"
http://www.ndwrcdp.org/userfiles/RESEARCH_NEEDS_PROCEEDINGS_CD.PDF

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See also:

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