

BEFORE THE BOARD OF COUNTY COMMISSIONERS

FOR COLUMBIA COUNTY, OREGON

In the Matter of the Application of West Oregon)	
Electric for a Major Map Amendment and Zone)	
Change from Rural Residential (RR-5) to)	ORDINANCE No. 2011-1
Community Service-Utility (CS-U) and a Site)	
Design Review to Allow for the Siting of an)	
Electrical Power Substation)	

The Board of County Commissioners for Columbia County, Oregon, ordains as follows:

SECTION 1. TITLE.

This Ordinance shall be known as Ordinance No. 2011-1.

SECTION 2. AUTHORITY.

This Ordinance is adopted pursuant to ORS 203.035, ORS 203.045, and ORS 197.175.

SECTION 3. PURPOSE.

The purpose of this Ordinance is to approve the application of West Oregon Electric Cooperative for Comprehensive Plan and Zoning Map Amendment (PA 11-02 and ZC 11-01) and a Site Design Review (DR 11-03) to allow for a new electrical power substation on an 8.15-acre property near the city of Vernonia. Specifically, this Ordinance changes the Comprehensive Plan and Zoning Map designation of the property from Rural Residential-5 (RR-5) to Community Service-Utility (CS-U) and approves the Site Design Review application for a new electrical substation with conditions.

SECTION 4. PROCEDURAL HISTORY.

Following proper notice, the Columbia County Planning Commission (Planning Commission) held a public hearing on the Comprehensive Plan and Zoning Map Amendment application (PA 11-02 and ZC 11-01) on December 6, 2010, and issued a final order recommending approval with conditions. The Board of County Commissioners (Board) took original jurisdiction over WOEC's concurrent application for Site Design Review (DR 11-03) on November 24, 2010, pursuant to Columbia County Ordinance No. 91-2, Section 11.

On December 15, 2010, notice of a public hearing before the Board to consider PA 11-02, ZC 11-01 and DR 11-03 was mailed to persons entitled to notice. Notice was also published in the *Chronicle* and *Independent* newspapers. The Board held a public hearing on PA 11-02,

ZC 11-01, and DR 11-03 on January 12, 2011. The Board then closed the record for submittal of new evidence and testimony, deliberated, and voted to tentatively approve the application. The Board continued the matter to January 26, 2011. On January 26, 2011, the Board continued the matter to February 2, 2011.

SECTION 5. FINDINGS AND CONCLUSIONS.

The Board of County Commissioners adopts the findings of facts and conclusions of law in the Staff Report for PA 11-02 and ZC 11-01, dated January 5, 2011, attached hereto as Exhibit A and incorporated herein by this reference, and the Staff Report for DR 11-03, attached hereto as Exhibit B and incorporated herein by this reference.

The Board also adopts the following additional findings and conclusions to address objections raised at the hearing:

1. Neighboring property owners raised concerns about the health risks associated with electric and magnetic fields (EMF). Although the neighboring property owners do not so state, the Board understands those concerns to be directed at Sections 1013.1 and 1013.3 of the Columbia County Zoning Code (CCZO).

CCZO § 1013.1 requires the Board to find, in approving a Community Service Utility use, such as an electrical power substation and transmission lines, that “[a]dverse impacts upon the adjacent land uses have been capable of being mitigated.” CCZO § 1013.3 requires a finding that “[t]he proposal will not create hazardous conditions that cannot be addressed with appropriate safeguards.” For the reasons stated in the staff reports, and for the following additional reasons, the Board finds that based on the evidence in the record, the EMF from the proposed substation will not create an adverse impact nor a hazardous condition that does not already exist on the neighboring properties.

The Board recognizes that EMF exposure is a valid concern. However, the Board finds that the EMF from the proposed electrical substation will be no greater than what exists in the average home as a result of typical household appliances. A report from the applicant’s engineering consultant, Elcon Associates, states:

“The average magnetic field strength at the Starnes house [(the nearest dwelling to the south of the site)] will be 0.10 mG or less with the addition of the substation. This will be only slightly higher than the existing magnetic field of 0.08 mG and significantly less than the field strength associated with the use of appliances in the Starnes house.”

According to a Fact Sheet from the Connecticut Department of Health, submitted by the applicant, “typical EMF levels found inside homes range from 0.1 to 4 mG.” Moreover, as the Fact Sheet explains, “[a]t 300 feet (a football field), EMF is at background levels” and “[i]n some cases, even closer distances are at

background level.” The proposed substation will be more than 600 feet from the nearest dwelling to the south and more than 200 feet from the nearest dwelling to the north. In addition, the substation will transmit 34.5 kV, which according to the testimony of Larry Heath of Elcon Associates, is similar to distribution transformers typically sited on concrete pads at businesses, such as grocery stores.

In the absence of any evidence that the proposed substation will raise the EMF levels in the neighboring dwellings above background levels, the Board finds that the EMF from proposed substation will be no greater than the current household levels of EMF at the neighboring dwellings.

2. Neighboring property owners were also concerned that the proposed fluid containment system for the substation will be inadequate to contain oil spillage, thus presenting fire and environmental hazards. CCZO § 1013.3 provides that the “[t]he proposal will not create hazardous conditions that cannot be addressed with appropriate safeguards.” The Board finds for the following reasons, in addition to those stated in the staff reports, the applicant has proposed appropriate safeguards to address the hazardous conditions identified.

The hazardous liquid at issue here is FR3, which serves as a coolant for the transformers. Steve Scott, Engineering and Operations Manager for WOEC, testified that FR3 is essentially vegetable oil, and it is less flammable than other oils used in the industry. WOEC consultant, Larry Heath, Elcon Associates, also testified that the risk of an oil fire is low because of the FR3 oil. The Board finds the expert testimony of Scott and Heath to be credible and that WOEC has addressed fire and environmental safety, in part, through its use of the less flammable, biodegradable FR3 cooling liquid.

Regarding the adequacy of the containment system, WOEC engineering consultant, Mike Unger, Elcon Associates, testified that the containment system received approval from the appropriate federal agencies. Unger also explained that the proposed above-ground containment system, consisting of a rock drain field surrounded by a berm, is adequate for the WOEC facility based on the type of transformers and the type and amount of liquid. The Board finds Unger to be credible. The Board further finds that, in the absence of any technical evidence of the system’s inadequacy, the proposed containment system is an appropriate safeguard against fire and environmental hazards.

Finally, WOEC environmental consultant, Sean Sullivan of David Evans and Associates, addressed environmental concerns. He testified that the project complies with all federal environmental regulations and that a Finding of No Significant Impact (FONSI) has been issued for the project. The Board finds Sullivan’s testimony to be credible and finds that the applicant has taken appropriate measures to safeguard against potential fire and environmental hazards.

SECTION 6.

AMENDMENT AND AUTHORIZATION.

- A. The Board hereby approves the Major Map Amendment (PA 11-02 and ZC 11-01) and authorizes the amendment of the Comprehensive Plan Map designation from Rural Residential to Community Service and the Columbia County Zoning Map designation from Rural Residential-5 (RR-5) to Community Service-Utility (CS-U) for the approximately 8.15-acre property (Tax Lot 4408-011-00901), subject to the following condition:
1. The Zone Change to Community Service-Utility is specifically approved for the development of an electrical power utility substation and its associated infrastructure. Any other use proposed for the approximately 8.15-acre subject property, even though allowed in the CSU zone, shall require additional review and approval by the Planning Commission as to the appropriateness of the use for the subject property.
- B. The Board hereby approves the Site Design Review (DR 11-03), subject to the following conditions:
1. This Design Review shall remain valid for two (2) years from the date of the final decision. This permit shall become void, unless the proposal has commenced in conformance with all conditions and restrictions established herein within the two-year validity period. Extensions of time may be granted by the Planning Director if requested in writing with the appropriate fee before the expiration date, given the applicant is not responsible for failure to develop.

Prior to the issuance of any Building Permit application, the following conditions shall be met (Findings 2 - 7):

2. The applicant shall submit a revised Site Plan identifying the following additional detail to the improvements:
 - a. Setbacks of the new substation fence from property lines shall conform to the setbacks approved by the Deputy Chief for the Vernonia Rural Fire District in the letter dated July 30, 2010. The revised site plan shall reflect these minimum setbacks - approximately 78 feet to the north, 221 feet to the west, 340 feet to the south and 359 to the east.
 - b. A Landscape Plan demonstrating that the developed portion of the site will be screened from the north, east and south property lines. Consideration shall be given to screening the site for noise and aesthetic purposes. Said landscape plan shall be reviewed and approved by Land Development Services.
 - c. A driveway Paving Plan for paving the existing driveway. The paved surface shall include the entire driveway width from Hwy 47 to the

intersection of the neighbor's drive and continue at Fire Apparatus width on WOEC's drive to the proposed gate.

3. The applicant shall maintain fire apparatus access to all sides of the new electrical power substation. This access shall be demonstrated on the final site plan and approved by the Vernonia Rural Fire Protection District. Verification of the RFPD's approval shall be submitted to Land Development Services.
4. The applicant shall submit verification to Land Development Services from the Vernonia Rural Fire Protection District that the driveway has been constructed to fire apparatus access standards.
5. The applicant shall submit documentation to Land Development Services from the Division of State Lands verifying that the wetlands on site will not be impacted by the proposed project, and as such, not require a DSL permit. If wetlands are impacted, the applicant shall submit copies of approved DSL permits to LDS.
6. The applicant shall submit verification of an approved road access permit from the Oregon Department of Transportation (ODOT).
7. A Final Stormwater and Erosion Control Plan, stamped by a Professional Engineer, shall be approved by the County.

Prior to final inspection or Certificate of Occupancy issuance for this proposal, the following conditions shall be met (Findings 8-11):

8. All improvements per approved plans (e.g. final site plan, final landscape plan & stormwater plan) shall be installed.
9. The portion of the driveway required to be paved, shall be paved in accordance with the approved paving plan.
10. Lighting shall be installed so as to prevent glare onto adjacent properties, abutting rights-of-way and skyward for aircraft.
11. The applicant shall demonstrate that the substation is operating at decibel levels consistent with DEQ's guidelines as outlined in Oregon Administrative Rule, Division 35. Specifically, the applicant shall be required to submit evidence to Land Development Services that the statistical noise levels generated by the new substation do not exceed the standards set forth by OAR 340-035-0035, Table 8. As per OAR 340-035-0035(4)(a), procedures for such measurements shall conform to procedures set forth in the Sound Measurement Procedures Manual (NPCS-1).

12. Landscaping shall be kept free of refuse and maintained so that it does not: 1) preclude the maintenance or repair of a public utility, 2) restrict pedestrian and vehicular access, and 3) will not constitute any traffic hazards because of reduced visibility. Landscaping shall be maintained in a presentable manner consistent with all applicable standards of the County Code and as required by the conditions herein for the life of the proposal. Existing vegetation of the site shall be preserved to the greatest extent possible.
13. A Sign Permit and Building Permit (as applicable) shall be applied for and approved, in compliance with County and any other applicable agency's regulations before any new signs are installed.
14. The applicant shall water the driveway during construction to reduce the impacts of dust onto neighboring properties.
15. The applicant shall dispose of hazardous materials in accordance with applicable Department of Environmental Quality (DEQ) regulations.
16. Changes to approved plan(s) and/or elevations shall be reviewed and approved by the County prior to implementation. All work shall accurately reflect County approved plans.

SECTION 9. SEVERABILITY.

If any portion of this Ordinance is for any reason held invalid by any court of competent jurisdiction, such portion shall be deemed as a separate, distinct, and independent portion, and such holdings shall not affect the validity of the remaining portion of this ordinance.

SECTION 10. SCRIVENER'S ERRORS

Scrivener's errors in any portion of this ordinance may be corrected by order of the Board of County Commissioners.

///

///

///

///

///

///

///

SECTION 11. EMERGENCY CLAUSE.

This Ordinance, being immediately necessary for the health, safety and welfare of the citizens of Columbia County, an emergency is declared to exist, and it shall become effective upon adoption.


DATED this 2nd day of February, 2011.

Approved as to Form

By: 

Office of County Counsel

Recording Secretary

By: 
Jan Greenhalgh, Recording Secretary

First Reading: Feb 2, 2011

Second Reading: Feb 2, 2011

Effective Date: Feb 2, 2011

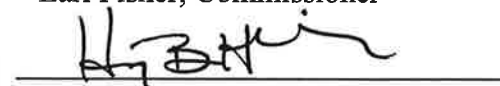
BOARD OF COUNTY COMMISSIONERS
FOR COLUMBIA COUNTY, OREGON

By: 

Anthony Hyde, Chair

By: 

Earl Fisher, Commissioner

By: 

Henry Heimuller, Commissioner

EXHIBIT A

**COLUMBIA COUNTY BOARD OF COUNTY COMMISSIONERS
STAFF REPORT
January 5, 2011
Comprehensive Plan Map Amendment and Zone Change**

HEARING DATE: January 12, 2011

FILE NUMBER: PA 11-02 and ZC 11-01

**APPLICANT/
OWNER:** West Oregon Electric
715 Maple Street, P.O. Box 69
Vernonia, OR 97064

SITE LOCATION: The site is located approximately $\frac{1}{4}$ of a mile south of the City of Vernonia, on the west side of Nehalem Highway South (Highway 47), at 58897 Nehalem Highway South.

TAX MAP NO: 4408-011-00901

PRESENT COMPREHENSIVE

PLAN DESIGNATION: Rural Residential

PROPOSED COMPREHENSIVE

PLAN DESIGNATION: Community Service

PRESENT ZONING: Rural Residential - 5 (RR-5)

PROPOSED ZONING: Community Service-Utility (CS-U)

SITE SIZE: ± 8.15 Acres

REQUEST: To amend the County's Comprehensive Plan Map from Rural Residential to Community Service and the County's Zoning Map from Rural Residential-5 (RR-5) to Community Service-Utility (CS-U) to allow for the siting of a new electrical power substation.

APPLICABLE REVIEW CRITERIA:

<u>Columbia County Zoning Ordinance</u>	<u>Page</u>
Section 1010 Community Service-Utility	6
Section 1502 Zone Changes (Map Amendments)	15
Section 1603 Quasi-judicial Public Hearings	16
Section 1605 Zone Change - Major Map Amendment	17
Section 1607 Consistency with the Comprehensive Plan	17

Section 1608 Notice of Quasi-judicial Hearing 18

Columbia County Comprehensive Plan

Part II - Citizen Involvement 18
Part III - Planning Coordination 19
Part VI - Housing 19
Part VII - Rural Residential 20
Part X - Economy 21
Part XIII - Transportation 21
Part XIV - Public Facilities & Services 22
Part XVI - Goal 5 resources 23
Part XVIII - Air, Land and Water Quality 25
Part XIX - Natural Disasters and Hazards 26

Oregon Statewide Planning Goals

Goal 1 - Citizen Involvement 26
Goal 2 - Land Use Planning 27
Goal 5 - Open Spaces, Scenic/Historic Areas and Natural Resources 29
Goal 6 - Air, Water and Land Resources 29
Goal 7 - Areas Subject to Natural Disasters 30
Goal 9 - Economic Development 31
Goal 10 - Housing 31
Goal 11 - Public Facilities and Services 32
Goal 12 - Transportation 32

Columbia County Zoning Ordinance

Section 1502.1(A)(3) Adequacy of Public Facilities 33

APPLICATION COMPLETE: 10/27/10

150-DAY DEADLINE: 3/26/11

BACKGROUND:

The applicant, West Oregon Electric, proposes a County Comprehensive Plan Map Amendment and Zone Change for an approximate 8.15 acre property located just south of the City of Vernonia. Currently, the subject property has a comprehensive plan map designation of Rural Residential and a zoning designation of Rural Residential - 5 (RR-5). The request is to amend the comprehensive plan map from Rural Residential to Community Service and the zoning from RR-5 to Community Service - Utility (CS-U) to allow for the siting of a new electrical power substation.

Need

West Oregon Electric provides power to portions of Columbia, Clatsop, Tillamook, Washington and Yamhill Counties with an approximate 2,000 square mile service area. Both the primary (Anderson Park) and backup (East) substations serving Columbia County are located within the City of Vernonia

in the 100-year floodplain. The existing substations are inaccessible during flood conditions, and the transmission systems use overhead lines supported on wood poles that are prone to damage from falling limbs and high winds. Additionally, according to the applicant, the Anderson Park Substation is more than 40 years old, with only a 40 year design expectancy for its transformers. As proposed, the new site would allow for the siting of a substation outside of the 100-year flood hazard area, with new transformers and underground distribution lines. The new site and substation would replace the primary Anderson Park Substation. The Anderson Park Substation would remain in service, acting as the new backup substation, and the existing backup East Substation would be dismantled. The proposed map amendment and zone change would support the siting of a new substation, which would in turn (as stated by the applicant) “result in fewer minor temporary service interruptions...” and “increase reliability for users in the event of a flood.”

History

The subject property has been owned by West Oregon Electric since at least 1979, and was developed for the storage of equipment (power poles, transformers, etc...) prior to zoning in the early 1980s. With the adoption of the County’s Comprehensive Plan and Zoning Ordinance in 1984, however, the site was designated residential. On June 28, 1994, West Oregon Electric applied for the same comprehensive plan map and zone change that is the subject of this application; to change the comprehensive plan map from Rural Residential to Community Service and the zoning map from RR-5 to CS-U. The intent of the map amendment and zone change (at the time) was to allow for the construction of a new pole barn. Both Planning Staff and the Planning Commission recommended approval of the original request, but the Board of Commissioners denied the application at a public hearing on January 18, 1995. Said denial was based on findings that a pole barn was a permitted use in the RR-5 Zone, and as such, did not necessitate the proposed comprehensive plan map and zone amendment. Electrical power substations are not a permitted use in the RR-5 Zone, hence this proposal.

Site Characteristics

The subject property has frontage along its east property line on State Highway 47. Access to the site is obtained from the highway via a gravel driveway that travels more than 200 feet over the adjacent property to the south (tax lot 4408-011-00900) before crossing onto the subject property. An easement for said access is recorded in Deed Book 232, Page 885. Fire services are provided to the site by the Vernonia Fire Protection District.

Existing development of the site is clustered at the west end of the property, more than 450 feet from Highway 47. The developed portion of the site and portion of the site proposed for development are relatively flat (with an approximate four percent slope as described by the applicant). The easternmost $\frac{1}{3}$ of the site is undeveloped and slopes down toward the highway at an average 21% slope. Although the Vernonia, Oregon National Wetland Inventory (NWI) Map does not identify wetlands on the subject property, an on site wetland reconnaissance prepared by David Evans and Associates Inc. identified an approximate 1.08 acre palustrine forested (PFO) wetland at the west end of the property along Highway 47. A small, seasonal, intermittent creek flows south into this wetland, where the creek and wetland are then drained by a culvert underneath Highway 47 into another wetland on the east side of the highway. As per FEMA Flood Insurance Rate Map (FIRM) No. 41009CO377 C, the subject property is not located in a flood hazard area. The site is located in a Peripheral Big Game Habitat

Overlay zone as identified by the Upper Nehalem Valley Wildlife Game Habitat CPAC Map, but contains no threatened, endangered or sensitive wildlife, plant and natural areas.

The site is surrounded to the north, south and east (across Highway 47) by Rural Residential (RR-5) zoned properties and to the west by Primary Forest (PF-76) zoned properties. RR-5 zoned properties in this area are developed with single-family dwellings at a relatively low density, with lots ranging in size from approximately one acre to approximately 10 acres. Neither existing, nor proposed development of the site is visible from neighboring properties as a dense buffer of Alder, Douglas-fir and Red Cedar surround the property in every direction. Neighboring property owners to the north and south have expressed concerns regarding locating an electrical power substation amongst existing residential development. The neighbors' concerns are addressed in findings throughout this report.

Content of Report

The remainder of this report will analyze and evaluate the extent to which the proposed map amendment and zone change comply with the applicable provisions of the Columbia County Zoning Ordinance and Comprehensive Plan and Oregon Statewide Planning Goals.

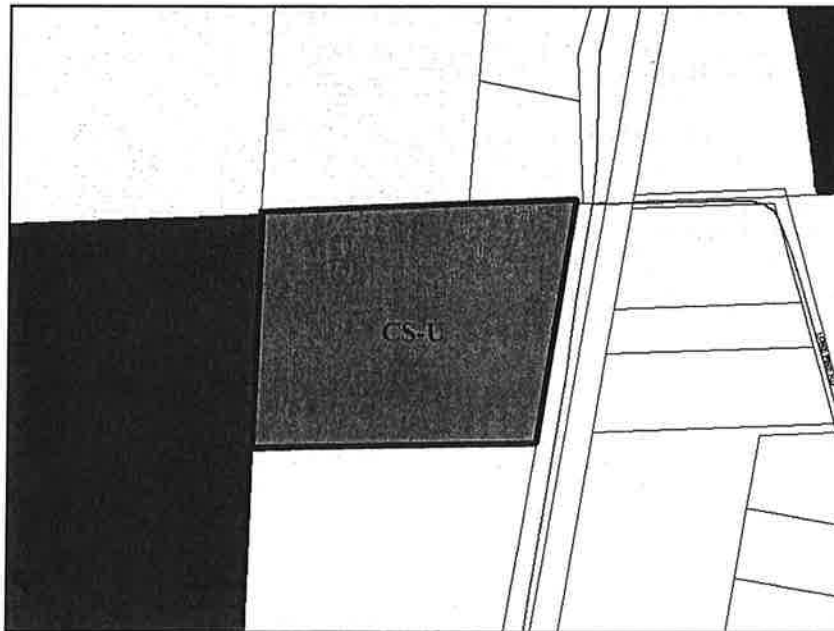
Aerial Photograph- PC Maps (2009)



Existing Zoning Map



Proposed Zoning Map



REVIEW CRITERIA, FACTS, ANALYSIS & FINDINGS:

Zoning Ordinance Section 1010 Community Service-Utility

Section 1010 COMMUNITY SERVICE - UTILITY

CS-U

1011 Purpose: The purpose of the Community Service - Utility district is to provide for the review and approval of the location and the development of special uses which, by reason of their public necessity and unusual character or effect on the neighborhood, may not be suitable for listing with other sections of this Ordinance. The CS-U District allows establishment of various types of public utility facilities. The district is intended to function as a regular district within the Community Service designation.

1012 Permitted Uses:

- .1 Electrical power substations
- .10 Electrical transmission, telephone and pipe lines with separate right-of-way

Finding 1: The applicant requests approval of a Comprehensive Plan Map amendment and Zone change to allow for the siting of a new electrical power substation and transmission and distribution lines on an ± 8.15 acre property just south of the City of Vernonia. With its current zoning of Rural Residential (RR-5), the subject property can not be developed as such. As per Section 1012 of the Columbia County Zoning Ordinance, the Community Service-Utility zone allows “electrical power substations” and “electrical transmission lines...” as permitted uses, and is therefore, an appropriate zoning designation for the proposed use. The appropriateness of the subject property for the proposed land use district and use is reviewed through the proposal’s consistency with the Zoning Ordinance, Comprehensive Plan and Statewide Planning Goals. Additionally, prior to development, a Site Design Review will be required to address design standards intended to mitigate potential adverse impacts on surrounding properties of different uses. Sections 1013 (Approval Criteria), 1014 (Conditions of Approval) and 1015 (Standards) of the Columbia County Zoning Ordinance are addressed in Findings 2 - 7 that follow to provide reasonable assurance that the siting of an electrical power substation at the proposed location will either not be detrimental to surrounding properties, or that if conflicts exist, they may be minimized or alleviated through measures imposed through the site design review stage. Staff finds that the intended use for the site is consistent with the purpose and permitted uses of the CS-U Zone.

Continuing with the Columbia County Zoning Ordinance Section 1013

1013 Approval Criteria: In approving a Community Service Utility use, the Commission or other approval authority shall find:

- .1 Adverse impacts upon the adjacent land uses have been capable of being mitigated. (Mitigation measures may be imposed by the approval authority through conditional approval as provided in Section 1014 below.)

Finding 2: The subject property is surrounded to the north, south and east (across Highway 47) by Rural Residential (RR-5) zoned properties that are developed with single-family dwellings. Property adjacent to the site to the west is zoned Primary Forest (PF-76) and is undeveloped timber land. As described in the background section of this report, existing development of the site is clustered at

the west end of the property; the fenced area is located approximately 450' from the east property line, \pm 250' from the south property line, \pm 50' from the north property line and \pm 20 feet from the west property line. The new substation and control house are proposed to be located within a new fenced area which will extend east from the existing fenced area approximately 110 feet. New development of the site will not extend north or south of the existing fenced pole yard. As such, the new substation will be located more than 600 feet from the dwelling on the property adjacent to the site to the south and more than 200 feet from the dwelling on the property adjacent to the site to the north. Dwellings east of the site are also a significant distance from the development site and are further separated from the property by Highway 47.

Visual Impacts:

As stated by the applicant and verified by Staff on a recent site visit, development of the \pm 8.15 acre site is not visible from adjacent properties or from Highway 47. The periphery of the site is densely forested in every direction (except along the west property line) which screens the site from view (see aerial photograph on page 4). Although a buffer does not exist between the developed portion of the site and the PF-76 zoned property to the west, said property is not developed residentially and is intended for resource use. Finding 5 addresses how the project will not adversely affect forestry or agricultural uses in the area. The applicant has stated that some vegetation will need to be cleared to accommodate the overhead power lines that will run eastward from the new substation across Highway 47. However, it is not anticipated that the clearing will significantly increase visibility of the site from the roadway. Specifically, the applicant states, "...approximately three trees need to be removed. Some trees may need to have limbs clipped, most likely the tops, to allow for the new overhead lines. However, the limbing will be as minimal as possible to complete the project and is not anticipated to affect the integrity of the trees." Conditions of Approval will be imposed at the time of Site Design Review to require the preservation of a vegetative buffer around the periphery of the subject property.

Finally, in regard to visual impacts, the applicant proposes to install eight 100-watt high pressure exterior sodium lights on the substation structure. As stated by the applicant, "The lights would illuminate the area, but would not be directed toward adjacent properties. The existing trees at the pole yard would screen the lighting so that it would not be visible from adjacent properties." In accordance with Section 1563.E of the Columbia County Zoning Ordinance, the applicant shall be required to shield the light so that it does not shine on adjacent properties and roads. Said standard will be required as a Condition of Approval at the time of Site Design Review.

Noise Impacts:

The applicant has indicated that there will be some noise generated by the substation. Based on a conversation with Mike Unger, Principal Electrical Engineer, with ELCON Associates, Inc. and information submitted by the applicant, standard substation transformers generate a noise level of 63 decibels (db). West Oregon Electric has ordered "low noise" transformers, which generate 57 db. According to the applicant, four transformers side-by-side (as proposed) considering ambient noise, etc...will generate a total of 59 dB. The applicant's explanation of this is as follows: "Six transformers placed in a row have a resulting noise level that is 3 db higher than the noise level of one of the transformers. Since we have only 4 transformers, we estimate that the resulting noise level will be 2 db higher—thereby increasing the noise level to 59 db." The applicant further explains that "the transformers will generally be lightly loaded. The maximum load in the winter is

anticipated to be 5 MVA. During nighttime, the load will be in the 1 - 2 MVA range. Lightly loaded transformers emit slightly less noise—probably at least 1 db less, thereby resulting in a noise level of 58 db.”

The Oregon Department of Environmental Quality’s Noise Control Regulations, as outlined in OAR 340-035-0035(1)(b) and its associated Table 8, prohibit new industrial and commercial noise sources from exceeding 55 dBA in any one hour between the hours of 7 am and 10 pm and 50 dBA between the hours of 10 pm and 7 am. Statistical noise levels shall be measured at an appropriate measurement point, which is defined by OAR 340-035-0035(3)(b) as “that point on the noise sensitive property, described below, which is further from the noise source: (A) 25 feet (7.6 meters) toward the noise source from that point on the noise sensitive building nearest the noise source; (B) That point on the noise sensitive property line nearest the noise source.” A noise sensitive property is defined by OAR 340-035-0015(38) as “real property normally used for sleeping...” As the subject property abuts residential districts to the north, south and east, through the Site Design Review process, the applicant shall be required (as a Condition of Approval) to demonstrate that the substation is operating at decibel levels consistent with DEQ’s guidelines as outlined in Oregon Administrative Rule, Division 35.

Based on information submitted by the applicant, it does not appear that noise generated by the substation transformers will significantly impact neighboring residential properties. The applicant describes the noise generated by transformers as a quiet hum. For reference purposes only, information supplied by the Temple University Department of Civil/Environmental Engineering, correlates 50 db to a quiet suburb or quiet conversation at home, 40 db to a library and 30 db to a quiet rural area. In no direction will surrounding properties experience a noise level of 50 dBA or greater. Furthermore, as stated by the applicant, “The noise from a source decreases by 3 db every time the distance is doubled from the noise source. The 58 db level is for a location 3 feet from the transformer. If the distance from the transformers is doubled seven times, the noise level will be reduced by 21 db resulting in a 37 db level. The corresponding distance from the transformer is 384 feet. The south fence of the pole yard is about 400 feet from the transformers.” For example, the dwelling located on the adjacent property to the south, is approximately 200 feet further south from the property line. Therefore, the applicant estimates that the noise level at said dwelling will be 35 db. Noise impacts to residences in the area should be minimal.

Electric and Magnetic Fields (EMF)

The applicant submitted information from the Electric Power Research Institute regarding the electric and magnetic fields associated with the generation, delivery and use of electricity. The Electric Power Research Institute (EPRI) is an “independent, non-profit company performing research, development and demonstration in the electricity sector for the benefit of the public.” In a report addressing the environmental issues of EMF, EPRI describes electric and magnetic fields as follows:

“The generation, delivery, and use of electricity produce electric and magnetic fields (EMF). Electric fields are produced by voltage, the electrical ‘pressure’ that causes current to flow in a wire or cable; magnetic fields are produced by current, the movement of electric charge. Electric and magnetic fields can be imagined as invisible lines of force that weaken with increasing distance from their source.”

The report further describes possible health effects from exposure to EMF. Evidence of health effects from exposure to EMF have only been studied for the past 30 years and are somewhat inconclusive at this time. This report is included as an attachment to the staff report. Also included as an attachment is information from the applicant identifying the average EMF that will be experienced by surrounding properties as a result of the proposed electrical substation and transmission lines. According to the applicant, there will be "very little" increase in EMF to neighboring property owners, and most likely "significantly less than the field strength associated with the use of appliances typically used in residences. As stated in the attached EPRI report, "There is no conclusive evidence that exposure to EMF causes health effects." However, "Scientists continue to investigate the possible relation between EMF and health outcomes." Based on evidence provided by the applicant that the substation will produce an EMF that is less than typical household appliances, it appears that the proposal will have minimal EMF impacts on neighboring properties and residents

Dust Impacts:

Finally, concerns have been expressed (from neighboring property owners) regarding dust generated from the driveway used for access. As described in the background section of this report, the site is accessed by a gravel driveway that travels more than 200 feet over the neighboring property to the south before turning northward onto the subject property. The driveway is approximately (\pm) 450 feet in length. According to the applicant, the proposed substation will not generate additional traffic to the pole yard, but the applicant does acknowledge the likelihood of temporary dust disturbances during construction of the site. As stated in the application, currently, there are eight to 10 vehicle trips (round trip) to the pole yard per day. Most of these trips are necessary to access vehicles and equipment to repair downed overhead lines and to trim trees to prevent downed lines. The addition of a substation at the subject site will only require one vehicle trip per month for maintenance of the substation. According to the applicant, this trip will most likely be combined with one of the eight to 10 trips that occur now.

The Institute of Transportation Engineers' 7th Edition Trip Generation Handbook has calculated the average trip generation for single-family detached dwellings per weekday and on Saturday and Sundays. On a weekday, one single-family dwelling will generate an average of 9.57 vehicle trips, on a Saturday, 10.10 trips, and on a Sunday, 8.78 trips. As such, the number of vehicle trips generated by West Oregon Electric to and from the subject property is comparable to the number of vehicle trips typically generated by single-family residential properties. However, the types of vehicles (trucks) combined with the use of the property has the potential to generate more dust than your average residential property. As such, through the Site Design Review process, it is likely that conditions will be included to require paving of the existing driveway. There are measures that can be taken to mitigate the impact of dust (from the proposed use) on neighboring properties.

Existing Gravel Driveway



**Driveway where it splits to serve the subject property
and the adjacent property to the south**



Adverse impacts upon adjacent land uses are capable of being mitigated and will be addressed through conditions, as described in the findings above, at the time of Site Design Review. Staff finds that the criterion will be met through the Site Design Review process.

- .2 The proposal will satisfy the applicable policies of the comprehensive Plan.

Finding 3: The proposal is consistent with the applicable policies of the Comprehensive Plan as discussed in Findings 14 - 23 of this report. Staff finds that the criterion is met.

- .3 The proposal will not create hazardous conditions that cannot be addressed with appropriate safeguards.

Finding 4: Finding 2 addresses the potential for certain types of hazardous conditions, such as an increased electric and magnetic field resulting from the new substation and transmission lines. As discussed in Finding 2, electric and magnetic fields decrease with distance from the source. Therefore, the applicant has concluded that there will be very little increase in EMF to neighboring residential properties based on the proximity of the proposed substation and transmission lines to surrounding existing dwellings (see attached discussion on EMF). The applicant further addresses other hazardous conditions associated with the proposed use as follows:

The transformers in the proposed new substation would contain 3,200 gallons of dielectric fluid (a fluid that does not conduct an electric current under normal circumstances) that serves as a cooling medium for the protection of internal components. The type of fluid WOEC anticipates using is considered fire resistant, and is made of edible seed oils and/or soy with no toxic substances. The proposed transmission and distribution lines, vaults, and poles would contain no toxic, hazardous, or radioactive materials.

WOEC occasionally tests, drains, dismantles, and disposes of existing transformers. The transformers contain cooling fluid with less than five parts per million of hazardous material. The fluid would be drained prior to removal, and the fluid and the transformer components would be disposed of in compliance with applicable regulations in a hazardous material disposal facility in Salem, Oregon. The poles that are currently used, and some of which will be removed, most likely contain creosote. The poles will be taken to an appropriate facility to be disposed of according to DEQ regulations.

Based on information provided by the applicant, it does not appear that the proposal will create hazardous conditions that cannot be addressed with appropriate safeguards. See Finding 2 for other potential hazards and mitigation strategies. If the Comprehensive Plan Map Amendment and Zone Change are approved, a Site Design Review shall be completed prior to any structural development of the site. Safeguards addressing potential hazards associated with the proposed use, including the requirement for the appropriate disposal of hazardous materials, will be addressed through the Site Design Review process. Staff finds that the criterion will be met through a Site Design Review.

- .4 The proposal will not adversely affect existing agricultural or forestry uses or practices in the area.

Finding 5: As discussed previously in this report, the subject property is surrounded to the north, east and south by RR-5 zoned properties and to the west by a PF-76 zoned property. The RR-5 zoned properties in the area are developed residentially and are not employed (for the most part) for commercial agricultural or forest production. The adjacent PF-76 zoned property is approximately 73.63 acres in size and consists of vacant timber land. The subject property has been used as a

maintenance and storage yard for West Oregon Electric since the early 1980s and has coexisted adjacent to this forested property for almost 30 years without adversely affecting timber management of the site. Furthermore, it is not anticipated that the addition of the proposed substation and transmission lines will be detrimental to resource uses or practices within the area.

There is a slight risk of fire hazard associated with the proposed use that, although unlikely, could impact forested lands in the area. The applicant submitted a letter from the Deputy Chief for the Vernonia Rural Fire Protection District addressing the proposed location of the substation on the subject property as it pertains to fire safety. The District provides Fire, EMS, and Rescue services for the Vernonia Substation and Distribution Line project area. The letter states the following:

“I have reviewed the above referenced project’s features for safety concerns. The new substation will be setback approximately 78 feet from the closest property line (the north property line), 221 feet from the west property line, 340 feet from the south, and 359 feet from the east. The new substation would be approximately 35 feet from the closest structure—a concrete pad, and approximately 60 feet from an existing shed on the property. I believe these setbacks are adequate for safety. I would like to ensure that we have access to all sides of the substation for defensive fire attacks in the event of an emergency. Preferred space would be enough to drive a small brush fire truck around the perimeter...”

Design standards for fire safety, addressing setbacks of the substation from property lines, access to the substation and fire apparatus access standards, will be addressed through the Site Design Review process. Finally, although there are overhead power lines proposed as part of this project, part of the proposal replaces existing overhead power lines with underground power lines. This will reduce the potential for electrical sparks to set trees on fire. As such, although there is the potential for fire, with the appropriate safeguards (guaranteed through the Site Design Review) the increase in fire risk and the potential for adverse impacts to forested properties in the area is minimal. Staff finds that the criterion will be met through a Site Design Review.

- .5 A new CS-U use within an Urban Growth Boundary shall be served by public water and public sewer when necessary for the use. The Commission may waive the requirement for connection to public sewer if it can be shown that the proposed use can be safely served in another manner. In this case, the Commission shall require the CS-U use be connected to public sewer when it becomes available to the site.

Finding 6: The subject property is not located within an Urban Growth Boundary, and is therefore not required to be connected to public water or sewer. The criterion does not apply.

Continuing with the Columbia County Zoning Ordinance Section 1014

1014 Conditions of Approval: The approval authority may consider the following factors in addressing the impacts created by the proposed use, and impose any conditions necessary to mitigate that impact.

- .1 Landscaping, berming, fencing, or screening.
- .2 Off-street parking as provided in Section 1400.
- .3 Limitations on the type and amount of external lighting.
- .4 Limitations on the number and location of access points which connect with County

roads or public ways.

- .5 Such other factors and conditions, such as setbacks, unloading, construction standards, maintenance and landscaping requirements or any other factor appropriate under the circumstances necessary to protect the public health, safety, and welfare.
- .6 Signs shall be provided in accordance with Section 1300.

Finding 7: Factors as listed in Section 1014 (above) of the Columbia County Zoning Ordinance will be addressed through the Site Design Review process, and conditions necessary to mitigate impacts of the proposed use implemented at that time. Some, but not all, conditions that will be required at the time of Site Design Review are identified in Findings 1, 4 and 5 of this report. Staff finds that the criterion will be met through a subsequent Site Design Review.

Continuing with the Columbia County Zoning Ordinance Section 1015

1015 Standards:

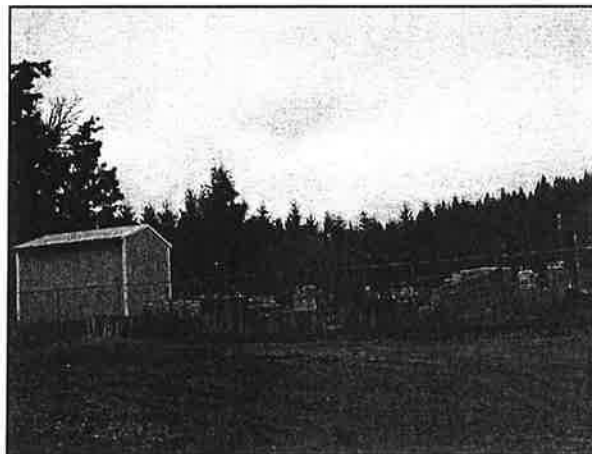
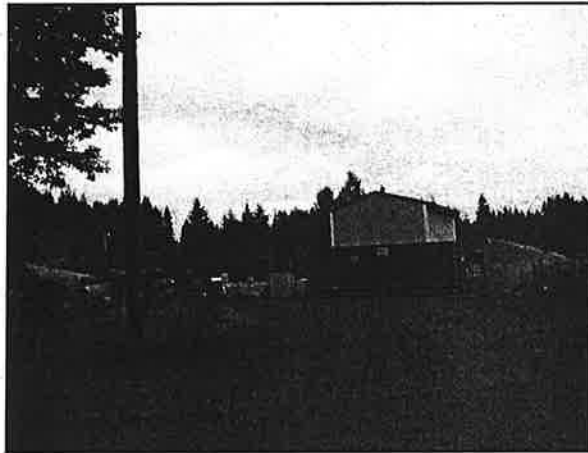
- .1 There is no designated minimum lot or parcel size. The Commission shall review each proposal on a case by case basis and determine if the site is adequate for the proposed use. They shall review the site plan of the proposal and determine if the site meets all the provisions of this Ordinance, including the off-street parking requirements of Section 1400.
- .2 There are no designated minimum setbacks in this district. The applicant shall submit a letter from the Fire Marshall concerning the necessary setbacks for safety. After reviewing this letter and the adjacent land uses, the Commission shall establish setback requirements for each individual site.

Finding 8: The subject property is approximately 8.15 acres in size and is more than sufficient to accommodate the existing pole/storage yard, the new electrical power substation and the off-street parking requirements of Section 1400 of the County's Zoning Ordinance. The existing fenced storage yard encompasses approximately 36,000 square feet of the subject property, and the footprint of the proposed substation is approximately 110' x 110', for a total area of ± 12,100 square feet. These areas combined take up less than one acre of the approximate eight acre site. Section 1416.5 of the Zoning Ordinance requires industrial sites used for storage to have "one parking space for each 5,000 square feet for the first 20,000 square feet plus 1 additional space for each additional 50,000 square feet." Additionally, CCZO Section 1418 requires two loading spaces. As such, there shall be five spaces to serve the existing pole yard, one space to serve the proposed substation, and two loading spaces. The site plan submitted by the applicant identifies a large gravel area south of the fenced pole yard and proposed substation capable of accommodating parking and vehicle circulation on the subject property. The size of this area exceeds that which is necessary to meet the required eight parking spaces. Parking standards will be addressed through the Site Design Review process.

As discussed in Finding 5 previously, the applicant has submitted a letter from the Deputy Chief of the Vernonia Rural Fire Protection District regarding setbacks of the proposed use from property lines. The site plan, as submitted by the applicant, shows the substation 78 feet from the north property line, 221 feet from the west property line, 340 feet from the south property line and 359 feet from the east property line. The Deputy Chief commented that the setbacks, as proposed, are

adequate for fire safety. Setbacks will be further reviewed at the time of Site Design Review, but the shape, size and location of the subject property are sufficient to accommodate setbacks as they pertain to fire safety. The site characteristics of the subject property are suitable for the proposed use. Staff finds that the criterion will be met with a Site Design Review.

Photos of the Existing Pole/Storage Yard



Continuing with the Columbia County Zoning Ordinance Section 1502 Zone Changes

- .1 **Major map Amendments** are defined as Zone Changes which require the Comprehensive Plan Map to be amended in order to allow the proposed Zone Change to conform with the Comprehensive Plan. The approval of this type of Zone Change is a 2 step process:
- A. The Commission shall hold a hearing on the proposed Zone Change, either concurrently or following a hearing on the proposed amendment to the Comprehensive Plan which is necessary to allow the proposed zoning to conform with the Comprehensive Plan. The Commission may recommend approval of a Major Map Amendment to the Board of Commissioners provided they find adequate evidence has been presented at the hearing substantiating the following:
 - 1. The proposed Zone Change is consistent with the policies of the Comprehensive Plan;
 - 2. The proposed Zone Change is consistent with the Statewide Planning Goals (ORS 197); and
 - 3. The property and affected area are presently provided with adequate facilities, services, and transportation networks to support the use, or such facilities, services and transportation networks are planned to be provided concurrently with the development of the property.

 - B. Final approval of a Major Map Amendment may be given by the Board of Commissioners. The Commissioners shall hold a hearing on the proposed Zone Change either concurrently or following a hearing on the proposed Comprehensive Plan Amendment which is necessary to allow the proposed zoning to conform with the Comprehensive Plan. The Board may approve a Major Map Amendment provided they find adequate evidence has been presented substantiating the following:
 - 1. The proposed Zone Change is consistent with the policies of the Comprehensive Plan;
 - 2. The proposed Zone Change is consistent with the Statewide Planning Goals (ORS 197); and
 - 3. The property and affected area are presently provided with adequate facilities, services, and transportation networks to support the use, or such facilities, services, and transportation networks are planned to be provided concurrently with the development of the property.

Finding 9: The subject application is being processed as a Major Map Amendment because a Comprehensive Plan Map Amendment is necessary to allow the Zone Change, from Rural Residential-5 (RR-5) to Community Service-Utility (CS-U), to conform with the Comprehensive Plan. In order for the zoning to be changed as described, the Comprehensive Plan Map shall be changed from Rural Residential to Community Service. The Planning Commission heard the matter on December 6, 2010 and forwarded a favorable recommendation onto the Board of County Commissioners (recommendation of approval). The Board of Commissioners will review all testimony and make a decision to approve, approve with conditions, or deny the application.

Consistency with the policies of the Comprehensive Plan and the Oregon Statewide Planning Goals are reviewed throughout this report. The goals and policies of the Comprehensive Plan are addressed in Findings 14 - 23 and the Statewide Planning Goals are addressed in Findings 24 - 32. Likewise, the availability and adequacy of public facilities and services necessary to support the proposed use are discussed through the analyses of the proposal's consistency with the Comprehensive Plan and

Planning Goals, and specifically, Finding 33 of this report.

Continuing with Columbia County Zoning Ordinance Section 1603

Section 1603 Quasi-judicial Hearing As provided elsewhere in this ordinance, the Hearings Officer, Planning Commission, or Board of Commissioners may approve certain actions which are in conformance with the provisions of this ordinance. Zone Changes, Conditional Use Permits, Major Variances, and Temporary Use Permits shall be reviewed by the appropriate body and may be approved using the following procedures:

- .1 The applicant shall submit an application and any necessary supplemental information as required by this ordinance to the Planning Department. The application shall be reviewed for completeness and the applicant notified in writing of any deficiencies. The application shall be deemed complete upon receipt of all pertinent information. If an application for a permit or zone change is incomplete, the Planning Department shall notify the applicant of exactly what information is missing within 5 days of receipt of the application and allow the applicant to submit the missing information. The application shall be deemed complete for the purpose of this section upon receipt by the Planning Department of the missing information. [effective 7-15-97]
 - .2 Once an application is deemed complete, it shall be scheduled for the earliest possible hearing before the Planning Commission or Hearings Officer. The Director will publish a notice of the request in a paper of general circulation not less than 10 calendar days prior to the scheduled public hearing. Notices will also be mailed to adjacent individual property owners in accordance with ORS 197.763. [effective 7-15-97]
- [Note: ORS 197.763 requires 20 days notice (or 10 days before the first hearing if there will be 2 or more hearings), and that notice be provided to property owners within 100' (inside UGBs), 250' (outside UGBs), or 500' (in farm or forest zones).]
- .3 At the public hearing, the staff, applicant, and interested parties may present information relevant to the criteria and standards pertinent to the proposal, giving reasons why the application should or should not be approved, or what modifications are necessary for approval. [effective 7-15-97]
 - .4 Approval of any action by the Planning Commission at the public hearing shall be by procedure outlined in Ordinance 91-2. [effective 7-15-97]

Finding 10: West Oregon Electric submitted an application for a Major Map Amendment on October 20, 2010. The application was deemed complete on October 27, 2010 and scheduled to be heard at the Planning Commission's December 6, 2010 meeting. The 45-day notice was mailed to the Department of Land Conservation and Development (DLCD) on October 20, 2010. Notice of this application was mailed to surrounding property owners within 250 feet of the subject site on October 28, 2010. Finally, notice of the application and Planning Commission hearing was published in the *Independent* and *Vernonia's Voice* on November 24, 2010. This notice was published at least 10 calendar days prior to the December 6, 2010 public hearing date. Similarly, notice of this application for the Board of Commissioners public hearing was sent to surrounding property owners within 250 feet on December 15, 2010. Notice of the Board Hearing was published in the *Chronicle* and *Independent* on January 5, 2011. Public notification procedures as outlined by Section 1603 for Quasi-judicial hearings were followed for this proposal. Public hearing procedures will be followed in accordance with this Section and Ordinance 91-2.

Continuing with Columbia County Zoning Ordinance Section 1605

Section 1605 Zone Change - Major Map Amendment:

The hearing for a major map amendment shall follow the procedure established in Sections 1502, 1502.1, 1502.1A and 1502.1B. This hearing cannot result in the approval of a major map amendment. The Commission may make a recommendation to the Board of Commissioners that such a zone change be granted. Approval by the majority of the Commission is necessary in order to make recommendation to the Board of Commissioners. The Board of Commissioners hearing on the proposed zone change - major map amendment will be on the record unless a majority of the Board votes to allow the admission of new evidence.

Finding 11: The hearing for this application is a Major Map Amendment and will follow the procedures established in Sections 1502, 1502.1 (A and B) as described in Finding 9 previously. The Planning Commission held a public hearing on December 6, 2010 and made a recommendation to the Board of Commissioners. The Board of Commissioners will hold a hearing on January 12, 2011 and make a formal decision to allow, allow with conditions, or prohibit the proposed Comprehensive Plan Map Amendment and Zone Change.

Continuing with Columbia County Zoning Ordinance Section 1607

Section 1607 Consistency with the Comprehensive Plan:

All amendments to the Zoning Ordinance Text and Map shall be consistent with the Comprehensive Plan Text and Maps.

- .1 The Commission shall hold a hearing to consider the proposed amendments and shall make a recommendation to the Board of Commissioners with regard to the proposed amendments. The Board of Commissioners shall hold at least one hearing to consider the proposed amendments. Both the Commission and the Board of Commissioners hearings will require notice in the manner outlined in Section 1611.

Finding 12: As discussed in Finding 9 previously, the request to change the Zoning Ordinance Map from RR-5 to CS-U also requires a Comprehensive Plan Map Amendment from Rural Residential to Community Service. This application is being processed as a Major Map Amendment, involving amendments to both the Comprehensive Plan Map and Zoning Map. The zone changes' consistency with the Comprehensive Plan is discussed in the findings that follow.

The Planning Commission held a public hearing on the proposed amendments on December 6, 2010. They made a recommendation of approval to the Board of Commissioners, who are scheduled to hold a public hearing on the matter on January 12, 2011. This is a quasijudicial hearing. Notice of the Planning Commission hearing and Board of County Commission hearing followed the procedures set forth in Sections 1603 and 1608 of the County's Zoning Ordinance. Staff finds that the criterion is met.

Continuing with Columbia County Zoning Ordinance Section 1608

1608 **Contents of Notice:** Notice of a quasijudicial hearing shall contain the following information:

- .1 The date, time, and place of the hearing;
- .2 A description of the subject property, reasonably calculated to give notice as to the actual location, including but not limited to the tax account number assigned to the lot or parcel by the Columbia County Tax Assessor;
- .3 Nature of the proposed action;
- .4 Interested parties may appear and be heard;
- .5 Hearing to be held according to the procedures established in the Zoning Ordinance.

Finding 13: Notice of the Planning Commission’s public hearing was published in the *Independent* and *Vernonia’s Voice* on November 24, 2010, and contained all information required by Section 1608 of the Columbia County Zoning Ordinance. Notice of the Board of County Commissioner’s public hearing was published in the *Chronicle* and *Independent* on January 5, 2011. All applicable information as outlined in Section 1608 was published.

Section 1502.1(A)(1) Consistency with the Comprehensive Plan

THE FOLLOWING POLICIES OF THE COUNTY’S COMPREHENSIVE PLAN APPLY TO THIS PROPOSAL (THOSE NOT LISTED ARE NOT APPLICABLE):

Finding 14:

Part II (Citizen Involvement): requires opportunity for citizens to be involved in all phases of the planning process. Generally, Part II is satisfied when a local government follows the public involvement procedures set out in State statutes and in its acknowledged Comprehensive Plan and land use regulations, which has been completed for this application. This is explained further in Findings 10 and 13 above and under Part III of the Comprehensive Plan discussions. Additionally, the Upper Nehalem CPAC Planning Advisory Committee was notified of the proposed Comprehensive Plan Map Amendment and Zone Change. County Planning Staff, CPAC members and residents of the Vernonia community attended said meeting. The CPAC’s comments regarding this application are included under the “Comments Received” section of this report. The applicant also initiated citizen involvement. As stated by the applicant, “A Notice of Finding of No Significant Involvement and Notice of Intent to Request Release of Funds for West Oregon Electric Cooperative was published in the *Vernonia’s Voice* newspaper on September 28, 2010 and in the *Independent* newspaper on October 7, 2010...” Finally, the applicant held a meeting with the neighboring property owners (Joe and Elaine Starnes) directly south of the site. The applicant states the following:

“While the Starnes did not directly provide comments on the Environmental Assessment, Joe Starnes provided verbal concerns to WOEC staff during the Environmental Assessment comment period. WOEC and its electric engineering contractor (ELCON) met privately with Mr. Starnes to address his concerns about potential impacts of the proposed project, which included property value

impacts, transformer noise, and electro-magnetic fields (EMF). A summary of the contact with Starnes is included in Appendix C.” (See attached application)

Based on County government notifications, the opportunity for two public hearings (Planning Commission and Board of Commissioners), Citizen Planning Advisory Committee involvement, and the applicant’s personal efforts to communicate with surrounding property owners, Staff finds that Part II (Citizen Involvement) of the Comprehensive Plan has been satisfied.

Continuing with Columbia County Comprehensive Plan (Planning Coordination)

Finding 15:

Part III (Planning Coordination): requires coordination with affected governments and agencies. In accordance with Section 1603 of Columbia County’s Zoning Ordinance, ORS 215.060 and ORS 197.610, the County provided notice of the hearing with the opportunity for comments to DLCD, the Upper Nehalem CPAC members, affected property owners, and other relevant governmental entities. Any and all comments, received as of the date of this report, are discussed under COMMENTS RECEIVED below.

Additionally, this Comprehensive Plan Map Amendment is subject to the Quasi-judicial public hearing process and is heard by the Planning Commission (for a recommendation) and by the Board of County Commissioners (for a decision). These hearings are advertised and open to the public and provide additional opportunity for public comment. The Planning Commission hearing was held on December 6, 2010 which will be followed by a hearing of the Board of County Commissioners on January 12, 2011. All of these requirements have and will be satisfied through the public notice process. Staff finds that the criterion is met.

Continuing with Columbia County Comprehensive Plan (Housing)

Finding 16:

Part VI (Housing): The housing goal is to provide for the housing needs of the citizens of Columbia County by allowing adequate flexibility in housing location, type and density. The subject property has an existing non-conforming use. It has been owned by West Oregon Electric since at least 1979 and developed as a storage/pole yard (for power poles, transformers, etc...) since the early 1980s. With the adoption of the County’s Comprehensive Plan and Zoning Ordinance in 1984, however, the subject property was zoned for residential use, Rural Residential-5 (RR-5). The RR-5 Zone has a minimum lot size requirement of five acres and allows one dwelling unit per lot. The subject property is approximately 8.15 acres in size, and would therefore, only be eligible for the development of one single-family dwelling. The site has never been developed residentially, and the present land owner, West Oregon Electric, is neither required nor has any intention of using the property for residential purposes. As such, although it appears that the County’s potential housing stock would be reduced by one unit through the proposed comprehensive plan map amendment and zone change, based on the historical and present use of the property, it is unlikely that the site would be developed with a dwelling even if the property were to maintain its Rural Residential zoning designation.

Finally, the proposed map amendment and zone change will allow the subject property to be developed with a new electrical power substation. The existing and potential housing market in the Vernonia and surrounding unincorporated areas will benefit from the provision of a reliable energy supply. The proposed map amendment and zone change insignificantly decreases the County's potential housing supply by one unit on a property that has never been used for housing and allows it to be developed with a public utility to serve residential and commercial uses in the area. Moreover, as explained in the findings below, the proposal significantly furthers other, equally important goals, such as Part V Economy and Part XIV Public Facilities and Services by providing a much needed stable electrical supply to County residents and businesses. Staff therefore finds that although the proposal reduces the County's potential housing supply by one dwelling unit, the proposal satisfies other goals that outweigh such a loss.

Continuing with Columbia County Comprehensive Plan (Rural Residential)

Finding 17:

Part VII (Rural Residential): The rural residential goal is to provide for the continuation and needed expansion of rural residential uses on those lands where a valid exception to forest goals has been justified. Columbia County has a pattern of rural residential uses where rural homesites are located along or close to public roads or clustered near intersections and have an average density of one unit per ten acres or less. Lands that were "built and committed" to non-resource use at the time of zoning (1984), and that were generally developed for residential purposes, were zoned Rural Residential (RR-5 or RR-2). Although the subject property has never been a residential site, it is located amongst other residential properties and was zoned accordingly.

As discussed in Finding 20, Policy 18 of the Public Facilities and Services section of the Comprehensive Plan is to "designate parcels supporting public and private facilities and services as Community Service in the Comprehensive Plan and implement this plan designation through three zoning designations: (A) Community Service Utility - CSU, (B) Community Service Institutional - CSI, and (C) Community Service Recreation - CSR." Policy 19 goes on to state, "Designate as Community Service Utility(CSU) those lands that: (A) Support various types of public and private utility facilities existing as of the date of this ordinance; or (B) Are needed to support public and private utility facilities which can be shown to satisfy the minimum standards set out in the implementing ordinances." As the subject property was being used to store power poles and transformers to support two substations located within the City limits of Vernonia at the time of zoning, in accordance with Part XIV (Public Facilities and Services) of the County's Comprehensive Plan and the policies stated above, it is possible that the subject property should have been zoned Community Service-Utility initially in 1984.

Never-the-less, as discussed in Finding 16, pertaining to Housing, the subject property has never been used as a residential property and, most likely, will not be used residentially in the future. Changing the site's zoning from RR-5 to CS-U will not prohibit the continuation of an existing rural residential use, as the property has never been developed residentially. Finally, the proposed map amendment and zone change will not interfere with the expansion of rural residential uses on lands where a valid exception to forest goals has been justified because the

site is only eligible for one single-family dwelling based on the five acre minimum lot size of the RR-5 Zone and the ± 8.15 acre parcel size of the subject property. The loss of approximately 8.15 acres of Rural Residential land is not detrimental to the continuation and needed expansion of Rural Residential uses in the County. Staff finds that Part VII (Rural Residential) of the Comprehensive Plan has been satisfied.

Continuing with Columbia County Comprehensive Plan (Economy)

Finding 18:

Part X (Economy): Columbia County's Economic goals are to strengthen and diversify the economy and insure stable economic growth and to utilize the County's natural resources and advantages for expanding and diversifying the economic base. Policies 10 and 11 of the Economy section of the Comprehensive Plan are particularly relevant to the proposed amendment. Policy 10 "supports improvements in local conditions in order to make the area attractive to private capital investment" giving consideration to such factors as...capital improvements programming. Policy 11 requires coordination with "public utility companies to insure energy supplies are available to areas programmed for development and redevelopment." West Oregon Electric addressed these policies as follows:

Providing reliable electric power is essential for the operation of businesses in the region. WOEC needs a new substation located outside of the floodplain, with new transformers, with new underground distribution lines. WOEC's service area covers approximately 2,000 square miles in portions of Columbia, Clatsop, Tillamook, Washington and Yamhill counties. It provides electric power to the commercial, industrial and residential users in the service area. If the proposed new substation is not constructed, the existing Anderson Park and East substations would continue to be inaccessible during flood conditions. The existing Anderson Park substation is more than 40 years old. The design expectancy of its transformers is 40 years. The aging transformers at the Anderson Park Substation may begin to fail. WOEC's existing transmission system uses overhead 34.5-kV lines supported on wood poles that are prone to tree damage. For example, in November 2009, there were approximately 500 interruptions of service, primarily due to downed trees in windstorms. If the proposed project is not constructed, the lines would continue to be downed by falling trees and limbs, causing service disruptions and need for frequent repairs. The proposed new substation and lines that would be permitted if the Major Map Amendment is approved on the subject property are essential for continued electric power that provides service to the businesses in Columbia County.

For reasons described by the applicant above, Staff finds that Part X (Economy) of the Comprehensive Plan has been satisfied.

Continuing with Columbia County Comprehensive Plan (Transportation)

Finding 19:

Part XIII (Transportation): The goal of part XIII is the creation of an efficient, safe, and diverse transportation system to serve the needs of Columbia County residents. The subject

property has frontage on Highway 47, a State highway, and gains access to the site from said roadway. Highway 47, in this area, is a paved, two lane roadway with a 60 foot right-of-way. According to the applicant, the present use of the property, as a pole/storage yard, generates (on average) eight to 10 vehicle trips per day. The proposed electrical power substation would only generate one additional vehicle trip to the site per month, and as stated by the applicant, "The monthly (or less than monthly) maintenance trip likely would be combined with one of the approximately 8 to 10 daily trips to the pole yard property that occur now." As such, the proposed map amendment and zone change and subsequent use of the property for a substation will not increase traffic to and from the site and/or along the Highway 47 corridor.

Policies 2 and 9 of the Transportation section of the Comprehensive Plan are applicable to this project. Policy 2 requires the dedication of adequate right-of-way to meet the standards set in the Transportation Plan if a zone change is requested, and Policy 9 restricts the location of high voltage transmission lines to within existing rights-of-way whenever possible. Although this map amendment and zone change is specific to tax lot 4408-011-00901, it appears that West Oregon Electric intends to run their transmission lines within the right-of-way of Highway 47 wherever possible. The applicant submitted a copy of the Oregon Department of Transportation (ODOT) permit application for use of the Highway 47 ROW that they submitted to ODOT as part of this application. Additionally, ODOT was notified of the request and had no objection to its approval as submitted, as long as the same access (currently being used) will continue to be used. ODOT had no request for the dedication of additional right-of-way. The safety and efficiency of the transportation network in the area, including that of State Highway 47, will not be compromised as a result of this proposal. Staff finds that Part XIII of the Comprehensive Plan has been satisfied.

Continuing with Columbia County Comprehensive Plan (Public Facilities and Services)

Finding 20:

Part XIV (Public Facilities & Services): The goal of Part XIV is to plan and develop a timely, orderly, and efficient arrangement of public services as a framework for urban and rural development. As stated in the County's Comprehensive Plan, the location of transmission lines and substations involves serious land use consideration, as it involves allocating land away from densely populated areas and arranging land uses to attain the greatest possible degree of energy conservation. The Comprehensive Plan also addresses the need to keep primary transmission lines out of prime forest areas and to site public facilities on lands within urban growth boundaries or built and committed exception areas.

The subject property is approximately 8.15 acres in size and is surrounded to the north by a ± 9.05 acre parcel and a ± 1.37 acre parcel, to the east (across Highway 47) by lots ranging in size between one and two acres, to the south by a ± 6.77 acre parcel and to the west by an approximate 73.63 acre parcel. Properties north, east and south of the site are zoned RR-5 and the property west of the site is zoned PF-76. The site is located near the City of Vernonia, approximately 1/4 mile south of the city, in a relatively low density residential area. Higher density residential development (the one to two acre lots), with the exception of two lots north

of the site, are separated from the subject property by State Highway 47. This rural residential area, although not within an Urban Growth Boundary, was acknowledged in 1984 with its RR-5 zoning as being a built and committed exception area. As stated previously, the Comprehensive Plan encourages siting public facilities in such exception areas.

Also, although the site abuts resource zoned land to the west, as discussed in Finding 5, the Deputy Chief for the Vernonia Rural Fire Protection District, has stated that the setbacks for the proposed substation from property lines (specifically 221 feet from the west property line) are sufficient for fire safety. Furthermore, in accordance with the Comprehensive Plan's suggestion to keep primary transmission lines out of prime forest areas, the transmission lines proposed as part of this project will travel away from the forested property west of the site. Lines extend out from the substation in an easterly direction toward Highway 47. Additionally, some existing overhead lines will be replaced with underground lines further reducing the potential for fire hazards. By locating the new substation relatively near a city, consisting of dense residential and commercial development, but in a low density, previously acknowledged exception area, impacts to forest resources and residential properties are minimized and an energy efficient land use pattern is maximized.

Finally, as discussed in Finding 17 of the Staff Report, Policy 19 of the Comprehensive Plan requires lands that "support various types of public and private utility facilities existing as of the date of the ordinance; or are needed to support public and private utility facilities which can be shown to satisfy the minimum standards set out in the implementing ordinances" to be designated as Community Service-Utility (CS-U). The site has been used as a pole and storage yard to support two existing electrical power substations within the city limits of Vernonia since the early 1980s (prior to zoning). As such, it is arguable that the site should have been zoned CS-U with the adoption of zoning in 1984. Never-the-less, the proposed map amendment and zone change are necessary to support a new substation capable of providing reliable energy service to Columbia County residences and businesses. The existing primary substation is more than 40 years old with a 40 year design expectancy, and both the primary and secondary substations are located within the 100-year floodplain. According to the applicant, neither of the existing substations are accessible when flooding occurs, and in November of 2009, there were approximately 500 interruptions of service due to downed trees in windstorms. The project, as proposed, sites the new substation out of a flood hazard area, and replaces transmission and distribution lines to improve reliability. The physical location and site characteristics of the property meet the minimum standards of the CS-U Zone as outlined in Section 1015 of the Columbia County Zoning Ordinance and as discussed in Finding 8 of this report. Staff finds that Part XIV of the Comprehensive Plan has been satisfied.

Continuing with Columbia County Comprehensive Plan (Open Space, Scenic, Historic and Natural Areas)

Finding 21:

Part XVI (Goal 5: Open Space, Scenic and Historic Areas, and Natural Areas): The purpose of this Part of the Comprehensive Plan is to conserve open space and protect the identified

natural and scenic resources in Columbia County as defined by Statewide Planning Goal 5 and the related administrative rule. In order to meet the requirements of Statewide Planning Goal 5, the proposal's impacts on the following resources shall be evaluated: Fish and Wildlife Habitat, Water Resources, and Historic and Cultural Areas. Other resources identified by Goal 5 that are not listed, are not applicable to this request.

Article VIII. Fish and Wildlife Habitat: The Goal of Article VIII is to protect and maintain important habitat areas for fish and wildlife in Columbia County. The County's Comprehensive Plan discusses Big Game, Columbian White-Tailed Deer, Fish, Furbearer, Waterfowl, Non-Game Wildlife and Upland Game Habitats. The applicant provided a detailed and accurate discussion of the proposal as it pertains to fish and wildlife habitat on the subject property and within the project vicinity. The applicant's response to this part of the Comprehensive Plan is as follows:

"The Comprehensive Plan states that lands that have been zoned Rural Residential (such as the subject property) are areas for which an acknowledged "built and committed" exception to big game habitat has been taken and such exception areas are exempt from the development siting standards of the CCZO found in the Big Game Range Overlay District. Therefore, the subject property is not considered big game habitat. The subject property is not within the designated Columbian white-tailed deer habitat.

A biologist conducted a site visit on February 4, 2010 and completed an Endangered Species Act Review memorandum for the proposed project on March 18, 2010. The following listed species that occur in Columbia County are: Columbian white-tailed deer, northern spotted owl, coho salmon, water howelia, and Nelson's checkermallow. Of the five threatened and endangered species listed, the only species that would likely occur in the general project vicinity would be coho salmon, which occur in the Nehalem River, which runs parallel to the subject site to the east. Suitable habitat does not exist within the project area for the other four species.

The memorandum determined that the project would have no effect on listed or proposed species, and designated critical habitat because of the following. Any new construction would occur on a previously developed parcel. The project will not remove stream side trees and riparian vegetation. The project will comply with all state and local building codes and stormwater regulations. All stormwater will infiltrate and will not be discharged to a salmon bearing stream or proposed/designated critical habitat. However, due to the project's close proximity to the Nehalem River, which does provide habitat for listed coho salmon, as well as wetlands, the memorandum highly recommended that an erosion control plan be prepared prior to any ground disturbing activities, and that erosion control monitoring should occur during construction and shortly thereafter." The applicant's Stormwater and Erosion Control Plan will be reviewed through the Site Design Review process.

There are no fish or wildlife resources on the subject property. Therefore, the map amendment and zone change are consistent with Article VIII of the Comprehensive Plan.

Wetlands and Water Resources: It is the goal of the Water Resources section of the Comprehensive Plan to protect and maintain the quality of water resources in Columbia County.

Policies 3 and 14 specifically address wetlands. Although the Vernonia, Oregon National Wetland Inventory (NWI) Map does not identify wetlands on the subject property, an on site wetland reconnaissance prepared by David Evans and Associates Inc. identified an approximate 1.08 acre Palustrine Forested (PFO) wetland at the west end of the property along Highway 47. A small, seasonal, intermittent creek flows south into this wetland, where the creek and wetland are then drained by a culvert underneath Highway 47 into another wetland on the east side of the highway. Policy 3 advocates for the protection of wetlands to protect recharge areas for groundwater resources, and Policy 14 prohibits wetlands from filling, draining, or other alterations which would destroy or reduce their biological value. As stated by the applicant, "The installation of the proposed substation, lines, poles, and vaults has been designed to avoid impacts to natural resources. The project will avoid the wetland by boring under it where necessary. The Stormwater and Erosion Control Report for the project incorporates water quality treatment into the project design. Erosion control measures during construction will prevent any sediment from the project entering nearby wetlands and waters. Thus no impacts to wetlands, waterways, or water quality are anticipated." Impacts to said wetlands will be further analyzed through the Site Design Review process, and conditions imposed for permitting or mitigation of impacts if applicable. Section 1182 of the Columbia County Zoning Ordinance regulates permitted and prohibited uses within designated wetland areas. Development of the subject property shall comply with this Section of the Zoning Ordinance. Therefore, the request is consistent with the Wetlands and Water Resources sections of the Comprehensive Plan.

Article XI. Historic and Cultural Areas: It is the goal of Article XI to encourage the preservation and maintenance of cultural and historical sites, and to identify and preserve new sites. The subject property is not identified by Columbia County's Comprehensive Plan as a significant historic resource. Additionally, an archaeological reconnaissance conducted by Archaeological Investigations Northwest, Inc. identified the project site as having high potential for pre-contact archeological deposits, but determined, through excavations of the site, that there were no archaeological materials present on the subject property. Therefore, the proposal is consistent with Article XI of the Comprehensive Plan.

Continuing with Columbia County Comprehensive Plan (Air, Land and Water Quality)

Finding 22:

Part XVIII (Air, Land and Water Quality): The only section of Part XVIII applicable to this application is the Noise section. The goal of the Noise section of the Comprehensive Plan is to control and limit the adverse impacts of noise. See Finding 2 for a detailed discussion on the potential noise impacts associated with an electrical power substation. In summary, the substation will generate some noise, described by the applicant as a low hum. The anticipated decibel level of this noise at the property lines is between 30 db and 40 db. The Temple University Department of Civil/Environmental Engineering has identified 40 db as equivalent to the noise level of a library and 30 db as equivalent to a quiet rural area. According to the applicant, the amount of noise generated by the substation will be significantly lower than that which is permitted by the Department of Environmental Quality. The Oregon Department of Environmental Quality's Noise Control Regulations, as outlined in OAR 340-035-0035(1)(b)

and its associated Table 8, prohibit new industrial and commercial noise sources from exceeding 55 dBA in any one hour between the hours of 7 am and 10 pm and 50 dBA between the hours of 10 pm and 7 am. Although the map amendment and zone change is proposed for a property surrounded to the north and south by residential properties (Note: Residential properties east of the site are separated from the property by Highway 47), based on the noise impact analysis submitted by the applicant, it does not appear that the noise generated by the substation will be significant enough to qualify as a source of noise pollution. Staff finds that the proposal is consistent with Part XVIII of the Comprehensive Plan.

Continuing with Columbia County Comprehensive Plan (Natural Disasters and Hazards)

Finding 23:

Part XIX (Natural Disasters and Hazards): The Floodplain section of Part XIX is applicable to this application. The Goal of the Floodplain section is to eliminate or reduce the economic and social costs created by flood caused damages. As stated by the applicant, “The purpose of the proposed project is to construct a new main substation at the pole yard outside the floodplain.” As per FEMA Flood Insurance Rate Map (FIRM) No. 41009CO377 D, West Oregon Electric’s existing primary substation, located within the city limits of Vernonia, is located within the 100-year floodplain (Zone AE). Likewise, as per FEMA FIRM No. 41009CO381 D, WOEC’s back-up substation is located within the 100-year floodplain (Zone AE), with a portion of the property also located within the floodway. As discussed previously in this report, the existing substations are inaccessible during flood conditions. Alternately, the subject property is not located within a flood hazard area. If the comprehensive plan map amendment and zone change are approved, the applicant intends to dismantle the existing back up substation and use the existing primary substation as a backup to the proposed new substation. Currently, because West Oregon Electric’s substations are located within flood prone areas, power service to residents in the area can be unreliable and is often disrupted. Locating a new substation outside of the floodplain would eliminate and/or reduce the economic and social costs created by flood caused damages. As such, the proposed map and amendment and zone change are consistent with Part XIX of the Comprehensive Plan.

Section 1502.1(A)(2) Consistency with the Statewide Planning Goals

THE FOLLOWING OREGON STATEWIDE PLANNING GOALS APPLY TO THIS PROPOSAL (THOSE NOT LISTED ARE NOT APPLICABLE):

Finding 24:

Goal 1 (Citizen Involvement): Goal 1 requires opportunity for citizens to be involved in all phases of the planning process. Generally, Goal 1 is satisfied when a local government follows the public involvement procedures set out in the statutes and in its acknowledged Comprehensive Plan and land use regulations.

For quasi-judicial Comprehensive Plan Amendments and Zone Changes, the County’s land use regulations, ORS 215.060 and ORS 197.610 require notice to the public and to the Department

of Land Conservation and Development (DLCD) and public hearings before the County Planning Commission and Board of Commissioners. By complying with these regulations and statutes, the County complies with Goal 1.

West Oregon Electric submitted an application for a Major Map Amendment on October 20, 2010. The application was deemed complete on October 27, 2010 and scheduled to be heard at the Planning Commission's December 6, 2010 meeting. The 45-day notice was mailed to the Department of Land Conservation and Development (DLCD) on October 20, 2010. Notice of this application was mailed to surrounding property owners within 250 feet of the subject site on October 28, 2010. Additionally, the Upper Nehalem CPAC (Citizen Planning Advisory Committee) was notified of the proposed Comprehensive Plan Map Amendment and Zone Change. County Planning Staff, CPAC members and residents of the Vernonia community attended said meeting. The CPAC has no objection to the proposal as long as abatement measures, easement road maintenance and visual barriers between residents and the substation" are adequately addressed at the time of Site Design Review. The applicant also initiated citizen involvement by holding a private meeting with the neighboring property owners directly south of the site. Documentation of this meeting was submitted as part of the application. Finally, notice of the application and public hearing was published in the *Independent* and *Vernonia's Voice* on November 24, 2010. This notice was published at least 10 calendar days prior to the December 6, 2010 Planning Commission hearing date. Likewise, property owners within 250 feet of the site were notified of the Board of County Commissioner's public hearing, scheduled for January 12, 2011, on December 15, 2010 and notice of said hearing was published in the *Chronicle* and *Independent* on January 5, 2011. Public notification procedures as outlined by Section 1603 for Quasi-judicial hearings were followed for this proposal. Public hearing procedures will be followed in accordance with this Section and Ordinance 91-2. Staff finds that Goal 1 has been satisfied.

Continuing with the Oregon Statewide Planning Goals (Goal 2)

Finding 25:

Goal 2 (Land Use Planning): The purpose of Goal 2 is, "To establish a land use planning process and policy framework as a basis for all decisions and actions related to use of land and to assure an adequate factual base for such decisions and actions." Further, as summarized by the Department of Land Conservation and Development, Goal 2 requires coordination with affected governmental entities, consistency with acknowledged plans, and periodic review and revisions (as needed) to those plans. "Goal 2 also contains standards for taking exceptions to statewide goals. An exception may be taken when a statewide goal cannot or should not be applied to a particular area or situation."

As discussed in Finding 24, the County has complied with Goal 2's coordination requirement. The County notified the Department of Land Conservation and Development of the request on October 20, 2010. Based on a phone conversation with Columbia County DLCDC representative, Matt Spangler, on November 16, 2010, DLCDC has no objection to the application as submitted. Other governmental entities, including the City of Vernonia, the Vernonia Rural Fire Protection

District, the Oregon Department of Transportation (ODOT), and the Division of State Lands (DSL) were also notified of the request. DSL provided no comments related to the application. The City of Vernonia has no objection to the plan amendment and zone change as long as adverse impacts are mitigated in the Design Review application (see "Comments Received" section of this report). The Vernonia Rural Fire Protection District has no objection to the request as long as they have vehicle access to all sides of the substation, and ODOT has no objection as long as the existing driveway is being used for access. All comments received from affected governmental entities support the application as long as impacts to neighboring properties are mitigated through the design of the site and its proposed development.

Also, the applicant has coordinated with affected governments and agencies. As described in the application:

The applicant submitted a Conditional Use Permit application to the City of Vernonia for proposed distribution line and vault installation in the City of Vernonia. The applicant is coordinating with the Oregon Department of Transportation and Oregon Parks and Recreation Department regarding permits for easement. The applicant has coordinated with the Oregon Department of Environmental Quality regarding submission of a 1200-C permit for the proposed project. The applicant has communicated with the appropriate Tribes regarding, and has received concurrence from the State Historic Preservation Office with, the findings of the cultural resources reports prepared for the proposed project..

Findings throughout this report demonstrate the proposal's consistency with the County's Comprehensive Plan and Zoning Ordinance and with Oregon's Statewide Planning Goals. Exceptions to Planning Goals were not necessary for this proposal as the proposal involves the conversion of Rural Residential land to Community Service-Utility land. As described by Columbia County's Comprehensive Plan, "The statewide planning goals require that resource lands be protected unless the land is 'Built and Committed' to non-resource uses (a Type I Exception), or 'needed' to support a non-resource use (a Type II Exception). As discussed in Finding 17, the subject property was found, at the time of zoning, to be "built and committed" to a non-resource use, and as such, was granted a Type I exception to Goals 3 (Agriculture) and 4 (Forest Lands) with the adoption of its RR-5 zoning designation. No resource lands are being lost as a result of this application.

Additionally, an exception to Goal 14 (Urbanization) is not necessary. Goal 14 is not specifically applicable to this request, but for discussion on exceptions, the purpose of said Goal is "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." Rural lands as defined by Statewide Planning Goals "are those (lands) which are outside the Urban Growth Boundary and are: a) non-urban agriculture, forest, or open space lands, or b) other lands suitable for sparse settlement, small farms, or acreage homesites with no, or hardly any, public services and which are not suitable, necessary, or intended for urban use." The conversion of the subject property from RR-5 to CS-U will not commit land recognized as rural to an urban use. "Commercial utility facilities for the purpose of generating power for public use by sale" are conditionally permitted uses in the State's resource zones (Agriculture and Forest). As such, the State has recognized that electrical power generating facilities can be appropriate on rural lands and do not have to be

located in urban areas (within urban growth boundaries or incorporated cities). Furthermore, the proposed map amendment and zone change will not increase the density of the area, increase the need for additional public facilities and services or commit adjacent or nearby resource land to nonresource use. Finally, discussions with DLCDC indicate that an exception is not necessary for this request. Staff finds that Goal 2 has been satisfied.

Continuing with the Oregon Statewide Planning Goals (Goal 5)

Finding 26:

Goal 5 (Natural Resources, Scenic and Historic Areas, and Open Spaces): This goal is intended “to protect natural resources and conserve scenic and historic areas and open spaces.” Goal 5 further requires that local governments inventory scenic, historic and open space resources and adopt programs that will conserve these resources for present and future generations. Said resources include, but are not limited to, riparian corridors, including water, riparian areas and fish habitat, wetlands, wildlife habitat, approved Oregon Recreation Trails, natural areas, wilderness areas and cultural areas. Part XVI of the Comprehensive Plan addresses Goal 5. As such, Finding 21 of this report provides a detailed discussion of the Goal 5 resources on or near the subject property.

Wetlands are the only resource located on the property that have the potential to be impacted by construction of the new substation, transmission and distribution lines. As described in Finding 21, there is an approximate 1.08 acre Palustrine Forested (PFO) wetland at the west end of the property along Highway 47. A small, seasonal, intermittent creek flows south into this wetland, where the creek and wetland are then drained by a culvert underneath Highway 47 into another wetland on the east side of the highway. As stated by the applicant, “The installation of the proposed substation, lines, poles, and vaults has been designed to avoid impacts to natural resources. The project will avoid the wetland by boring under it where necessary. The Stormwater and Erosion Control Report for the project incorporates water quality treatment into the project design. Erosion control measures during construction will prevent any sediment from the project entering nearby wetlands and waters. Thus no impacts to wetlands, waterways, or water quality are anticipated.” Impacts to said wetlands will be further analyzed through the Site Design Review process, and conditions imposed for permitting or mitigation of impacts if applicable. Section 1182 of the Columbia County Zoning Ordinance regulates permitted and prohibited uses within designated wetland areas. Development of the subject property shall comply with this Section of the Zoning Ordinance. Therefore, the request is consistent with Statewide Planning Goal 5. Staff finds that the criterion will be satisfied.

Continuing with the Oregon Statewide Planning Goals (Goal 6)

Finding 27:

Goal 6 (Air, Water and Land Resources Quality): Goal 6 addresses the quality of air, water and land resources. In the context of comprehensive plan amendments/zone changes, a local government complies with Goal 6 by explaining why it is reasonable to expect that the proposed

uses authorized by the plan amendment will be able to satisfy applicable federal and state environmental standards. As specifically stated in Goal 6, "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." Waste and process discharge refers to solid waste, thermal, noise, atmospheric or water pollutants, contaminants, or products therefrom.

The proposed plan amendment and zone change would allow a new electrical power substation to be constructed on the subject property. As described in Finding 4 previously, occasionally, West Oregon Electric tests, drains and dismantles, and disposes of existing transformers, which contain cooling fluid of less than five parts per million of hazardous material. According to the applicant, "The fluid would be drained prior to removal, and the fluid and transformer components would be disposed of in compliance with applicable regulations in a hazardous material disposal facility..." The only other process discharge applicable to this proposal is noise. Findings 2 and 22 thoroughly discuss noise impacts associated with the proposed substation. As described in said findings, the noise impacts of the substation will be significantly lower than those permitted by the Department of Environmental Quality (DEQ). Air, Water and Land Resource Quality will be further analyzed through the Site Design Review process and conditions imposed for compliance with local, state and federal environmental regulations if applicable. Staff finds that Goal 6 has been satisfied.

Continuing with the Oregon Statewide Planning Goals (Goal 7)

Finding 28:

Goal 7 (Areas Subject to Natural Disasters and Hazards): The purpose of Goal 7 is, "To protect people and property from natural hazards." As summarized by DLC, "Goal 7 deals with development in places subject to natural hazards such as floods or landslides. It requires that jurisdictions apply 'appropriate safeguards' (flood plain zoning, for example) when planning for development there." As discussed in Finding 23, (as stated by the applicant) "The purpose of the proposed project is to construct a new main substation at the pole yard outside the floodplain." As per FEMA Flood Insurance Rate Map (FIRM) No. 41009CO377 D, West Oregon Electric's existing primary substation, located within the city limits of Vernonia, is located within the 100-year floodplain (Zone AE). Likewise, as per FEMA FIRM No. 41009CO381 D, WOEC's back-up substation is located within the 100-year floodplain (Zone AE), with a portion of the property also located within the floodway. The existing substations are inaccessible during flood conditions. Alternately, the subject property is not located within a flood hazard area. If the comprehensive plan map amendment and zone change are approved, the applicant intends to dismantle the existing back up substation and use the existing primary substation as a backup to the proposed new substation. Currently, because West Oregon Electric's substations are located within flood prone areas, power service to residents in the area can be unreliable and is often disrupted. Locating a new substation outside of the floodplain would eliminate and/or reduce the economic and social costs to people and property created by flood caused damages. Staff finds that Goal 7 has been satisfied.

Continuing with the Oregon Statewide Planning Goals (Goal 9)

Finding 29:

Goal 9 (Economic Development): The intent of Goal 9 is “to provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare, and prosperity of Oregon’s citizens.” Goal 9 applies mostly to urban and unincorporated lands inside urban growth boundaries and is therefore not specifically relevant to this request. Never-the-less, the applicant provided a detailed response to the proposal’s consistency with Statewide Planning Goal 9. This discussion is included in Finding 18 of the Staff Report. Although Goal 9 is not necessarily applicable to this request, Staff finds that the intent of Goal 9 is satisfied.

Continuing with the Oregon Statewide Planning Goals (Goal 10)

Finding 30:

Goal 10 (Housing): The purpose of Goal 10 is “to provide for the housing needs of citizens of the State.” Goal 10 applies primarily to lands within urban growth boundaries, but is included for discussion based on the potential reduction in housing stock (of one unit) resulting from the proposed map amendment and zone change. As presented verbatim in Finding 16: The subject property has been owned by West Oregon Electric since at least 1979 and developed as a storage/pole yard (for power poles, transformers, etc...) since the early 1980s. With the adoption of the County’s Comprehensive Plan and Zoning Ordinance in 1984, however, the subject property was zoned for residential use, Rural Residential-5 (RR-5). The RR-5 Zone has a minimum lot size requirement of five acres and allows one dwelling unit per lot. The subject property is approximately 8.15 acres in size, and would therefore, only be eligible for the development of one single-family dwelling. The site has never been developed residentially, and the present land owner, West Oregon Electric, has no intention of using the property for residential purposes. As such, although it appears that the County’s potential housing stock would be reduced by one unit through the proposed comprehensive plan map amendment and zone change, based on the historical and present use of the property, it is unlikely that the site would be developed with a dwelling even if the property were to maintain its Rural Residential zoning designation.

Finally, the proposed map amendment and zone change will allow the subject property to be developed with a new electrical power substation. The existing and potential housing market in the Vernonia and surrounding unincorporated areas will benefit from the provision of a reliable energy supply. The proposed map amendment and zone change insignificantly decreases the County’s potential housing supply by one unit on a property that has never been used for housing and allows it to be developed with a public utility to serve residential and commercial uses in the area. Although the request decreases the County’s potential housing supply by one unit, the proposal satisfies other Statewide Planning Goals that on balance, outweigh the loss of

one dwelling unit. Staff finds that the criterion has been met.

Continuing with the Oregon Statewide Planning Goals (Goal 11)

Finding 31:

Goal 11 (Public Facilities and Services): Goal 11 requires local governments “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 intent of the proposed map amendment and zone change is to allow for a new electrical power substation to be sited on a property in the Vernonia area outside of the 100-year floodplain. Currently, West Oregon Electric operates a primary substation and a back-up substation within the city of Vernonia, both of which are located within the 100-year flood hazard area. As discussed throughout this report, these substations are not accessible during flood conditions. The subject property, on the other hand, is not located within the floodplain and would increase power reliability for users in the event of a flood. If this plan amendment and zone change are approved, the back-up substation would be decommissioned and the primary substation converted to the back up substation. According to the applicant, no new service would be provided outside of the planned service areas. Finally, development of the existing pole/storage yard with a substation will not require the extension of other public facilities and/or services into the area that do not already exist. For reasons discussed in this Finding and in Findings 20 and 33, Staff finds that Goal 11 has been satisfied.

Continuing with the Oregon Statewide Planning Goals (Goal 12)

Finding 32:

Goal 12 (Transportation): Goal 12 requires local governments to “provide and encourage a safe, convenient and economic transportation system.” Goal 12 is implemented through LCDC’s Transportation Planning Rule (TPR), OAR 660, Division 12. The TPR requires that 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 to assure that allowed land uses are consistent with the identified function, capacity, and performance standards of the facility.

As discussed previously in Finding 19, the proposed map amendment/zone change and development of a new electrical power substation will not increase vehicle traffic to and from the site along Highway 47. As stated by the applicant:

“Access to the WOEC pole yard and most of the proposed distribution line corridor are from Highway 47. From mile points 79.96 to mile point 80.83, ODOT classifies Highway 47 as a Rural Principal Arterial. Through the City of Vernonia, ODOT classifies Highway 47 as a Rural Major Collector...The proposed project would not increase traffic on Highway 47 or any other roadway in the long term, as WOEC would not need to increase its operations and maintenance activities at the pole yard. Construction at the pole yard and along the distribution line corridor would temporarily increase the number of construction vehicles on Highway 47, but construction would last only five months, and construction vehicle traffic would be intermittent.”

The Oregon Department of Transportation was notified of the request and has no objection to its approval as submitted. The proposal will not have a significant impact on Highway 47. Staff finds that Goal 12 has been satisfied.

Continuing with the Columbia County Zoning Ordinance

Section 1502.1(A)(3) Adequate Facilities, Services and Transportation Networks

3. The property and affected area are presently provided with adequate facilities, services, and transportation networks to support the use, or such facilities, services, and transportation networks are planned to be provided concurrently with the development of the property.

Finding 33: The subject property is currently provided with adequate facilities, services and transportation networks to support the proposed map amendment/zone change and new electrical power substation. Wastewater facilities and/or service are not provided to, nor are they necessary for the existing or proposed use. There is a well on the subject property that (according to the applicant) only provides water for West Oregon Electric to wash their vehicles. The proposal does not require additional water service. Emergency services are provided to the site by the City of Vernonia's Police Department and the Vernonia Rural Fire Protection District. The Fire District was notified of the request and has no objection to its approval. Access to the site is obtained from State Highway 47. ODOT was notified of the request and has no objection to its approval. Public Facilities and Services are addressed in further detail in Findings 20 and 31 of this report, and Transportation Facilities are addressed thoroughly in Findings 19 and 32 of the report. The proposed use will provide electric power service to the Vernonia area and will not compromise public facilities, services, and/or transportation networks. Staff finds that the criterion is met.

Continuing with Columbia County Zoning Ordinance Section 1502 Zone Changes

- 1502 .3 Alternate Zones: If the Commission determines that a zone other than the one being proposed will adequately allow the establishment of the proposed use, the Commission may substitute the alternate zone for the proposed zone in either the Major Map Amendment or the Minor Map Amendment procedures.

Finding 34: The proposed Comprehensive Plan designation and Zoning designation are the most appropriate for the proposed use. Staff does not recommend the substitution of another plan designation or zone for this Major Map Amendment request.

COMMENTS RECEIVED

City of Vernonia: No Objection; The City does not object to the Plan Amendment and Zone Change. The City recommends that any adverse impacts be mitigated in the Design Review application per our comments.

Upper Nehalem CPAC: No Objection; Stipulations/conditions that were presented from the CPAC for the Site Design review are again presented with the Zone Change. At the time of Site Design Review issues pertaining to sound abatement measures, easement road maintenance and visual barriers between residents and the sub station should be addressed.

Vernonia Rural Fire Protection District: No Objection

Oregon Department of Transportation: No Objection as long as existing access is being used.

Division of State Lands: No Comment

Department of Land Conservation and Development: No Objection as per phone conversation with DLCDC Representative, Matt Spangler, on November 16, 2010

County Sanitarian: No Objection

County Building Official: No Objection

COMMENTS PRESENTED AT 12/6/10 PLANNING COMMISSION MEETING:

Carolyn Keasey (Vernonia Health Center Board, President): See Attached Letter

Joe and Elaine Starnes (58901 Nehalem Highway South): See Attached Letter dated 12/6/10, WOEC Issues Handout dated 12/6/10 and June 2002 EMF Questions and Answers Handout

No further comments from agencies, citizens or otherwise have been received regarding this proposal as of the date of this staff report.

CONCLUSION, & RECOMMENDED DECISION & CONDITIONS:

Based on the facts, findings and comments herein (as presented by Staff), the Planning Commission recommends **APPROVAL** of this Major Map Amendment (PA 11-02/ZC 11-01) to change the Comprehensive Plan Map designation from Rural Residential to Community Service and the Zoning Map designation from Rural Residential-5 (RR-5) to Community Service-Utility (CS-U) for the ± 8.15 acre subject property, identified by tax map # 4408-011-00901, subject to the following conditions:

1. The Zone Change to Community Service-Utility is specifically approved for the development of an electrical power utility substation and its associated infrastructure. Any other use proposed for the subject ± 8.15 acre property, even though allowed in the CSU zone, shall require additional review and approval by the Planning Commission as to the appropriateness of the use for the subject property.
2. Prior to obtaining a building permit, the applicant shall apply for Site Design Review in accordance with the Columbia County Zoning Ordinance.

ATTACHMENTS:

Application and maps
12/6/10 Planning Commission Meeting Minutes
Letter from Carolyn Keasey
Handouts from Joe and Elaine Starnes

EXHIBIT B

**COLUMBIA COUNTY BOARD OF COUNTY
COMMISSIONERS**

STAFF REPORT

January 5, 2011

Site Design Review - Type II

HEARING DATE: January 12, 2010

FILE NUMBER: DR 11-03

APPLICANT/OWNER: Western Oregon Electric, Inc.
715 Maple Street, P.O. Box 69
Vernonia, OR 97064

SITE LOCATION: The site is located approximately 1/4 of a mile south of the City of Vernonia, on the west side of Nehalem Highway South (Highway 47), at 58897 Nehalem Highway South.

MAP NO: 4408-011-00901

ZONING: Community Service-Utility (CS-U)

SITE SIZE: ± 8.15 acres

REQUEST: Site Design Review to construct a new electrical power substation on a property currently being used by West Oregon Electric as a pole yard.

APPLICABLE REVIEW CRITERIA:

<u>Columbia County Zoning Ordinance</u>		<u>Page</u>
Section 1010	Community Service-Utility	6
Section 1013	Approval Criteria	6 - 18
Section 1014	Conditions of Approval	18
Section 1015	Standards	21
Section 1182	Wetland Area Overlay	22
Section 1300	Signs	23
Section 1400	Off-Street Parking & Loading	23
Section 1550	Site Design Review	27
<u>Columbia County Stormwater and Erosion Control Ordinance</u>		<u>Page</u>
Chapter I	Introduction	30
Chapter III	Standards Specific to Activities	31

APPLICATION COMPLETE: 9/1/10

120-DAY DEADLINE: 12/30/10

BACKGROUND:

The applicant, West Oregon Electric, requests approval of a Type II Site Design Review for the construction of an electrical power substation on an approximate 8.15 acre property just south of the City of Vernonia. A Comprehensive Plan Map Amendment and Zone Change are being processed concurrently with this Site Design Review, to change the Comprehensive Plan Map designation from Rural Residential to Community Service and the Zoning Map designation from Rural Residential-5 (RR-5) to Community Service-Utility (CS-U). See PA 11-02 and ZC 11-01 for information regarding this Major Map Amendment. As such, approval of this design review application is contingent upon approval of the Comprehensive Plan Map Amendment and Zone Change. If approved, the site will be zoned CS-U. This is an appropriate zoning designation for the proposed use.

The site is currently used to store vehicles, transformers, poles and other equipment used to operate and maintain West Oregon Electric's other substations and electrical systems in the area. As stated by the applicant, "The proposed project would replace the primary substation that services the area (the Anderson Park Substation in the City of Vernonia), which is in the floodplain, thereby increasing reliability for users in the event of a flood...The Anderson Park Substation would remain in service, acting as a backup to the new Vernonia Substation. The existing backup station (East Substation – in Vernonia at Alder Creek and Pebble Creek Road) also is in the 100-year floodplain and would be dismantled. The project would result in fewer minor temporary service interruptions and maintenance trips...Furthermore, removal and replacement of existing overhead power lines with underground power lines will reduce the possibility of electrical sparks setting trees on fire." The subject property is currently developed with a graveled parking/turnaround area and a fenced yard containing a structure to store vehicles, a shed, and stored equipment (as discussed previously). New development proposed through this application (as described by the applicant) will include:

- One new 10-megavolt ampere (MVA) capacity substation with four single-phase transformers in an area east of and adjacent to the existing fenced area of the pole yard
- One new control house, approximately 10 feet wide by 20 feet long, adjacent to the new transformers
- Two new 34.5-kV transmission lines emanating from the south side of the new substation, crossing the property and Highway 47 overhead, and tying into the existing overhead transmission lines along the east side of Highway 47. This would be 950 feet of new overhead line.
- Four new 15-kV distribution lines emanating from the north side of the new substation in a two-foot-wide trench to four new vaults, then bored east to the Highway 47 right-of-way...This would be 1,770 feet of new underground line at the pole yard.
- Six new wood poles: three 52-foot tall (52 feet above grade, 60-foot total) on the site, which would support the two new 34.5kV overhead transmission lines just east of the new substation.
- Permanent vegetation removal and grading to accommodate the wider vehicle turnaround, new substation area, and 34.5kV line support poles on the pole yard property: 40,600 square feet of new impervious surface requiring 100,170 cubic feet of cut and 138,321 cubic feet of fill.
- Temporary vegetation removal on the pole yard: 600 square feet.

- 440 feet of new fence around the new substation. The fence will consist of $\frac{3}{8}$ -inch, mini-mesh, 9-gauge pattern. It will have razor ribbon on top. Total height above ground, including the razor ribbon, would be 8 feet.
- Three new 20-foot gates: Two to access the new substation and one on the driveway.
- Eight 100-watt high pressure sodium exterior lights mounted on the substation structure.

The submitted application describes activities that will occur on the \pm 8.15 acre property, within the Oregon Department of Transportation's (ODOT) right-of-way along Highway 47, and within the City of Vernonia. Although the application addresses the project as a whole, this Staff report analyzes development activities specific to the CS-U zoned property within the unincorporated County.

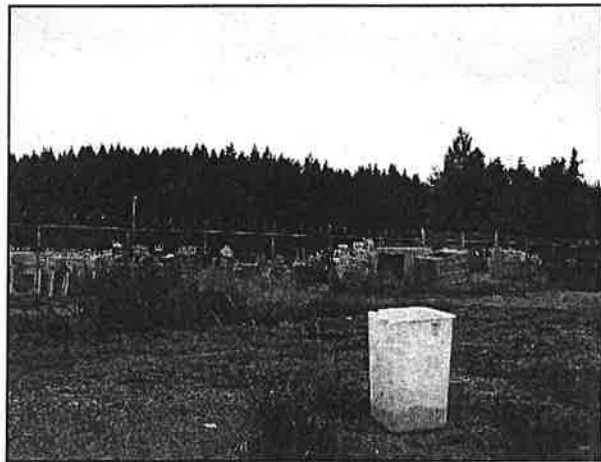
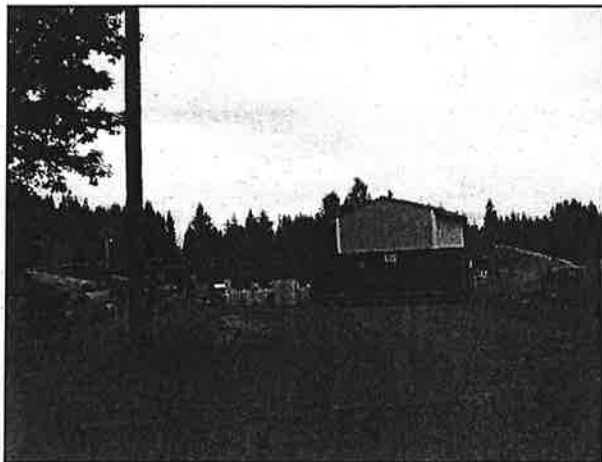
The subject property has frontage along its east property line on State Highway 47. Access to the site is obtained from the highway via a 16' wide, gravel driveway that travels more than 200 feet over the adjacent property to the south (tax lot 4408-011-00900) before crossing onto the subject property. An easement for said access is recorded in Deed Book 232, Page 885. Fire services are provided to the site by the Vernonia Fire Protection District. As the driveway exceeds 150 feet in length, the applicant shall submit verification from the Fire District that the driveway has been constructed to Fire Apparatus Access Standards. Also, Section 1015 of the Columbia County Zoning Ordinance, requires that the applicant submit a letter from the Fire Marshall to Land Development Services indicating that development of the site is proposed a sufficient distance from all property lines for fire safety. The applicant submitted such documentation as part of this application. Setback requirements for the substation from all property lines are discussed in Finding 5 of this report.

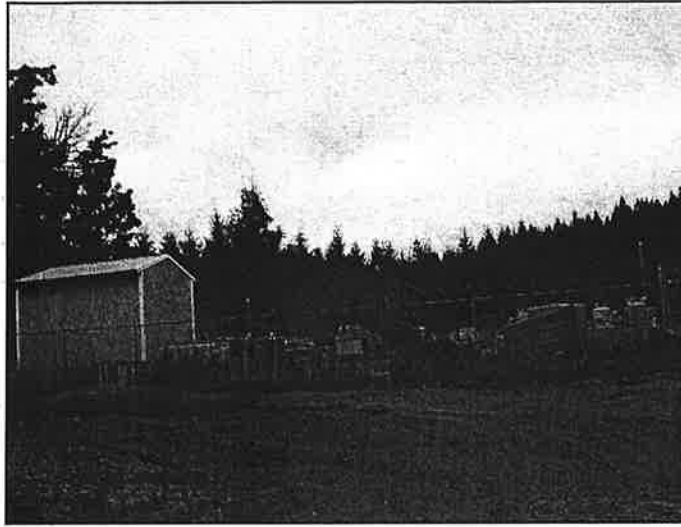
Existing development of the site is clustered at the west end of the property, more than 350 feet from Highway 47. The new control house and substation are proposed to be located directly east of the existing fenced area, and overhead power lines will extend in an easterly direction from the substation to the highway. The developed portion of the site and portion of the site proposed for development are relatively flat (with an approximate four percent slope as described by the applicant). The easternmost $\frac{1}{3}$ of the site is undeveloped and slopes down toward the highway at an average 21% slope. Although the Vernonia, Oregon National Wetland Inventory (NWI) Map does not identify wetlands on the subject property, an on site wetland reconnaissance prepared by David Evans and Associates Inc. identified an approximate 1.08 acre palustrine forested (PFO) wetland at the west end of the property along Highway 47. A small, seasonal, intermittent creek flows south into this wetland, where the creek and wetland are then drained by a culvert underneath Highway 47 into another wetland on the east side of the highway. Impacts to this wetland from development of the site are discussed in Finding 14 of this report. As per FEMA Flood Insurance Rate Map (FIRM) No. 41009CO377 C, the subject property is not located in a flood hazard area. The site is located in a Peripheral Big Game Habitat Overlay zone as identified by the Upper Nehalem Valley Wildlife Game Habitat CPAC Map, but was acknowledged as a "built and committed" exception area with the adoption of the Comprehensive Plan and Zoning Ordinance in 1984, and is therefore, not subject to the siting standards of the Big Game Range Overlay District. The site contains no threatened, endangered or sensitive wildlife, plant and/or natural areas.

Development of the site will result in the disturbance of more than 2,000 square feet of land, and as such, is subject to the requirements of the County's Stormwater and Erosion Control Ordinance. Specifically, the proposed project will increase the amount of impervious surface on the subject property by 40,600 square feet. The applicant has also identified more than 50 cubic yards of grading and fill that will take place as a result of the proposed project. Therefore, a grade and fill permit will also be required. Never-the-less, as stated by the applicant, "The project has been designed to avoid impacts to natural resources. The project will avoid nearby wetlands by boring under them where necessary. The Stormwater and Erosion Control Report for the project incorporates water quality treatment into the project design. Erosion control measures during construction will prevent any sediment from the project area from entering nearby wetlands and waters. Thus no impacts to wetlands, waterways or water quality are anticipated."

The site is surrounded to the north, south and east (across Highway 47) by Rural Residential (RR-5) zoned properties and to the west by Primary Forest (PF-76) zoned properties. Neither existing, nor proposed development of the site is visible from neighboring properties as a dense buffer of Alder, Douglas-fir and Red Cedar surround the property in every direction. Some trees along Highway 47 will be removed to accommodate the overhead power lines, but the vegetation along the periphery of the site in all other areas shall be maintained as a buffer between the substation and surrounding properties. Neighboring property owners north and south of the site have concerns about aesthetics, noise, dust, and electric and magnetic fields associated with the proposed project. The neighbor's concerns are addressed throughout findings in this report.

Photos of the Existing Pole/Storage Yard





Aerial Photograph - PC Maps (2009)



REVIEW CRITERIA, FACTS, ANALYSIS & FINDINGS:

Columbia County Zoning Ordinance Section 1010 Community Service-Utility (CS-U)

Section 1010 COMMUNITY SERVICE - UTILITY

CS-U

1011 Purpose: The purpose of the Community Service - Utility district is to provide for the review and approval of the location and the development of special uses which, by reason of their public necessity and unusual character or effect on the neighborhood, may not be suitable for listing with other sections of this Ordinance. The CS-U District allows establishment of various types of public utility facilities. The district is intended to function as a regular district within the Community Service designation.

1012 Permitted Uses:

- .1 Electrical power substations
- .10 Electrical transmission, telephone and pipe lines with separate right-of-way

Finding 1: West Oregon Electric requests approval to site an electrical power substation on an ± 8.15 acre property in the CS-U Zone. Electrical power substations are an outright permitted use in the Community Service-Utility (CS-U) zone contingent upon findings that said use is consistent with Sections 1013 and 1014 of the Columbia County Zoning Ordinance. Design standards are addressed in said sections to mitigate potential adverse impacts on surrounding properties of different uses. Sections 1013 (Approval Criteria), 1014 (Conditions of Approval) and 1015 (Standards) of the Columbia County Zoning Ordinance are addressed in Findings 2 - 7 that follow to provide reasonable assurance that the siting of an electrical power substation at the proposed location will either not be detrimental to surrounding properties, or that if conflicts exist, they may be minimized or alleviated through measures imposed through approval of the site design review. Staff finds that the intended use of the site is consistent with the purpose and permitted uses of the CS-U Zone, subject to consistency with Sections 1013, 1014 and 1015 of the Columbia County Zoning Ordinance.

Continuing with the Columbia County Zoning Ordinance Section 1013

1013 Approval Criteria: In approving a Community Service Utility use, the Commission or other approval authority shall find:

- .1 Adverse impacts upon the adjacent land uses have been capable of being mitigated. (Mitigation measures may be imposed by the approval authority through conditional approval as provided in Section 1014 below.)

Finding 2: The subject property is surrounded to the north, south and east (across Highway 47) by Rural Residential (RR-5) zoned properties that are developed with single-family dwellings. Property adjacent to the site to the west is zoned Primary Forest (PF-76) and is undeveloped timber land. As described in the background section of this report, existing development of the site is clustered at the west end of the property; the fenced area is located more than 350' from the east property line,

± 240 from the south property line, ± 50' from the north property line and ± 20 feet from the west property line. The new substation and control house are proposed to be located within a new fenced area which will extend east from the existing fenced area approximately 110 feet. New development of the site will not extend north or south of the existing fenced pole yard. As such, the new substation will be located more than 600 feet from the dwelling on the property adjacent to the site to the south and more than 200 feet from the dwelling on the property adjacent to the site to the north. Dwellings east of the site are also a significant distance from the development site and are further separated from the property by Highway 47.

Visual Impacts:

As stated by the applicant and verified by Staff on a recent site visit, development of the ± 8.15 acre site is not visible from adjacent properties or from Highway 47. The periphery of the site is densely forested in every direction (except along the west property line) which screens the site from view (see aerial photograph on page 5). Although a buffer does not exist between the developed portion of the site and the PF-76 zoned property to the west, said property is not developed residentially and is intended for resource use. Finding 5 addresses how the project will not adversely affect forestry or agricultural uses in the area. The applicant has stated that some vegetation will need to be cleared to accommodate the overhead power lines that will run eastward from the new substation across Highway 47. However, it is not anticipated that the clearing will significantly increase visibility of the site from the roadway. Specifically, the applicant states, "...approximately three trees need to be removed. Some trees may need to have limbs clipped, most likely the tops, to allow for the new overhead lines. However, the limbing will be as minimal as possible to complete the project and is not anticipated to affect the integrity of the trees."

At the Planning Commission meeting for the Plan Map Amendment and Zone Change (described in the background section of this report), the neighboring property owner, residing adjacent to the site to the south, stated that the developed portion of the site is visible from his property. To help mitigate this impact, the applicant has agreed to plant vegetation along the south property line. Finding 17 specifically addresses the landscaping requirements associated with this proposal, but in sum, as a Condition of Final Approval, the applicant shall be required to submit a Landscape Plan to Land Development Services demonstrating that the developed portion of the site will be screened from view from the north, east and south property lines.

Finally, in regard to visual impacts, the applicant proposes to install eight 100-watt high pressure exterior sodium lights on the substation structure. As stated by the applicant, "The lights would illuminate the area, but would not be directed toward adjacent properties. The existing trees at the pole yard would screen the lighting so that it would not be visible from adjacent properties." In accordance with Section 1563.E of the Columbia County Zoning Ordinance, the applicant shall be required to shield the light so that it does not shine on adjacent properties and roads. This standard is included as a Condition of Approval.

Noise Impacts:

The applicant has indicated that there will be some noise generated by the substation. Based on a conversation with Mike Unger, Principal Electrical Engineer, with ELCON Associates, Inc. and information submitted by the applicant, standard substation transformers generate a noise level of 63 decibels (db). West Oregon Electric has ordered "low noise" transformers, which generate 57 db. According to the applicant, four transformers side-by-side (as proposed) considering ambient noise, etc...will generate a total of 59 dB. The applicant's explanation of this is as follows: "Six transformers placed in a row have a resulting noise level that is 3 db higher than the noise level of one of the transformers. Since we have only 4 transformers, we estimate that the resulting noise level will be 2 db higher—thereby increasing the noise level to 59 db." The applicant further explains that "the transformers will generally be lightly loaded. The maximum load in the winter is anticipated to be 5 MVA. During nighttime, the load will be in the 1 - 2 MVA range. Lightly loaded transformers emit slightly less noise—probably at least 1 db less, thereby resulting in a noise level of 58 db."

The Oregon Department of Environmental Quality's Noise Control Regulations, as outlined in OAR 340-035-0035(1)(b) and its associated Table 8, prohibit new industrial and commercial noise sources from exceeding 55 dBA in any one hour between the hours of 7 am and 10 pm and 50 dBA between the hours of 10 pm and 7 am. Statistical noise levels shall be measured at an appropriate measurement point, which is defined by OAR 340-035-0035(3)(b) as "that point on the noise sensitive property, described below, which is further from the noise source: (A) 25 feet (7.6 meters) toward the noise source from that point on the noise sensitive building nearest the noise source; (B) That point on the noise sensitive property line nearest the noise source." A noise sensitive property is defined by OAR 340-035-0015(38) as "real property normally used for sleeping..." As the subject property abuts residential districts to the north, south and east, the applicant shall be required (as a Condition of Approval) to demonstrate that the substation is operating at decibel levels consistent with DEQ's guidelines as outlined in Oregon Administrative Rule, Division 35. Specifically, the applicant shall be required to submit evidence to Land Development Services that the statistical noise levels generated by the new substation do not exceed the standards set forth by OAR 340-035-0035, Table 8. As per OAR 340-035-0035(4)(a), procedures for such measurements shall conform to procedures set forth in the Sound Measurement Procedures Manual (NPCS-1).

Based on information submitted by the applicant, it does not appear that noise generated by the substation transformers will significantly impact neighboring residential properties. The applicant describes the noise generated by transformers as a quiet hum. For reference purposes only, information supplied by the Temple University Department of Civil/Environmental Engineering, correlates 50 db to a quiet suburb or quiet conversation at home, 40 db to a library and 30 db to a quiet rural area. In no direction will surrounding properties experience a noise level of 50 dBA or greater. Furthermore, as stated by the applicant, "The noise from a source decreases by 3 db every time the distance is doubled from the noise source. The 58 db level is for a location 3 feet from the transformer. If the distance from the transformers is doubled seven times, the noise level will be reduced by 21 db resulting in a 37 db level. The corresponding distance from the transformer is 384 feet. The south fence of the pole yard is about 400 feet from the transformers." For example, the

dwelling located on the adjacent property to the south, is approximately 200 feet further south from the property line. Therefore, the applicant estimates that the noise level at said dwelling will be 35 db. Noise impacts to residences in the area should be minimal.

Electric and Magnetic Fields (EMF)

The applicant submitted information from the Electric Power Research Institute regarding the electric and magnetic fields associated with the generation, delivery and use of electricity. The Electric Power Research Institute (EPRI) is an "independent, non-profit company performing research, development and demonstration in the electricity sector for the benefit of the public." In a report addressing the environmental issues of EMF, EPRI describes electric and magnetic fields as follows:

"The generation, delivery, and use of electricity produce electric and magnetic fields (EMF). Electric fields are produced by voltage, the electrical 'pressure' that causes current to flow in a wire or cable; magnetic fields are produced by current, the movement of electric charge. Electric and magnetic fields can be imagined as invisible lines of force that weaken with increasing distance from their source."

The report further describes possible health effects from exposure to EMF. Evidence of health effects from exposure to EMF have only been studied for the past 30 years and are somewhat inconclusive at this time. This report is included as an attachment to the staff report. Also included as an attachment is information from the applicant identifying the average EMF that will be experienced by surrounding properties as a result of the proposed electrical substation and transmission lines. According to the applicant, there will be "very little" increase in EMF to neighboring property owners, and most likely "significantly less than the field strength associated with the use of appliances typically used in residences. As stated in the attached EPRI report, "There is no conclusive evidence that exposure to EMF causes health effects." However, "Scientists continue to investigate the possible relation between EMF and health outcomes." As such, although it appears that impacts to neighboring properties and residents from the EMF generated by the proposed substation and transmission lines will be minimal, Planning Staff is not qualified to make a scientific determination on the impacts of the proposed use as it pertains to the health risks associated with EMF.

Dust Impacts:

Finally, concerns have been expressed (from neighboring property owners) regarding dust generated from the driveway used for access. As described in the background section of this report, the site is accessed by a gravel driveway that travels more than 200 feet over the neighboring property to the south before turning northward onto the subject property. The driveway is approximately (\pm) 450 feet in length. According to the applicant, the proposed substation will not generate additional traffic to the pole yard, but the applicant does acknowledge the likelihood of temporary dust disturbances during construction of the site. As stated in the application, currently, there are eight to 10 vehicle trips (round trip) to the pole yard per day. Most of these trips are necessary to access vehicles and equipment to repair downed overhead lines and to trim trees to prevent downed lines. The addition of a substation at the subject site will only require one vehicle trip per month for maintenance of the

substation. According to the applicant, this trip will most likely be combined with one of the eight to 10 trips that occur now.

The Institute of Transportation Engineers' 7th Edition Trip Generation Handbook has calculated the average trip generation for single-family detached dwellings per weekday and on Saturday and Sundays. On a weekday, one single-family dwelling will generate an average of 9.57 vehicle trips, on a Saturday, 10.10 trips, and on a Sunday, 8.78 trips. As such, the number of vehicle trips generated by West Oregon Electric to and from the subject property is comparable to the number of vehicle trips typically generated by single-family residential properties. However, the types of vehicles (trucks) combined with the use of the property has the potential to generate more dust than your average residential property. To minimize the impacts of dust to neighboring property owners, the applicant shall be required to pave a portion of the existing driveway. According to the applicant, paving of the driveway past a certain point is hazardous (unsafe) for vehicles in snow and ice conditions due to the steepness of slope and an increase in the driveway's grade. The applicant shall be required to submit documentation demonstrating the topography of the access, the grade of the driveway and a proposal for paving. This plan shall be approved by Land Development Services. The applicant has also indicated a willingness to "water" the driveway during construction to minimize the amount of dust generated by traffic during construction. Both paving and watering of the driveway are included as conditions of approval.

As discussed throughout this finding, there are measures that can be taken to minimize impacts from the proposed use upon adjacent land uses. Staff finds that the criterion is met subject to conditions.

Existing Gravel Driveway



**Driveway where it splits to serve the subject property
and the adjacent property to the south**



Continuing with the Columbia County Zoning Ordinance Section 1013

.2 The proposal will satisfy the applicable policies of the Comprehensive Plan.

Finding 3: The applicable policies of the Comprehensive Plan are as follows:

Finding 3.a: Part X (Economy): Columbia County's Economic goals are to strengthen and diversify the economy and insure stable economic growth and to utilize the County's natural resources and advantages for expanding and diversifying the economic base. Policies 10 and 11 of the Economy section of the Comprehensive Plan are particularly relevant to the proposed amendment. Policy 10 "supports improvements in local conditions in order to make the area attractive to private capital investment" giving consideration to such factors as...capital improvements programming. Policy 11 requires coordination with "public utility companies to insure energy supplies are available to areas programmed for development and redevelopment." West Oregon Electric addressed these policies as follows:

Providing reliable electric power is essential for the operation of businesses in the region. WOEC needs a new substation located outside of the floodplain, with new transformers, with new underground distribution lines. WOEC's service area covers approximately 2,000 square miles in portions of Columbia, Clatsop, Tillamook, Washington and Yamhill counties. It provides electric power to the commercial, industrial and residential users in the service area. If the proposed new substation is not constructed, the existing Anderson Park and East substations would continue to be inaccessible during flood conditions. The existing Anderson Park substation is more than 40 years old. The design expectancy of its transformers is 40 years.

The aging transformers at the Anderson Park Substation may begin to fail. WOEC's existing transmission system uses overhead 34.5-kV lines supported on wood poles that are prone to tree damage. For example, in November 2009, there were approximately 500 interruptions of service, primarily due to downed trees in windstorms. If the proposed project is not constructed, the lines would continue to be downed by falling trees and limbs, causing service disruptions and need for frequent repairs. The proposed new substation and lines that would be permitted if the Major Map Amendment is approved on the subject property are essential for continued electric power that provides service to the businesses in Columbia County.

For reasons described by the applicant above, Staff finds that Part X (Economy) of the Comprehensive Plan has been satisfied.

Continuing with Columbia County Comprehensive Plan (Transportation)

Finding 3.b: Part XIII (Transportation): The goal of part XIII is the creation of an efficient, safe, and diverse transportation system to serve the needs of Columbia County residents. The subject property has frontage on Highway 47, a State highway, and gains access to the site from said roadway. Highway 47, in this area, is a paved, two lane roadway with a 60 foot right-of-way. According to the applicant, the present use of the property, as a pole/storage yard, generates (on average) eight to 10 vehicle trips per day. The proposed electrical power substation would only generate one additional vehicle trip to the site per month, and as stated by the applicant, "The monthly (or less than monthly) maintenance trip likely would be combined with one of the approximately 8 to 10 daily trips to the pole yard property that occur now." As such, the proposed use of the property for a substation will not increase traffic to and from the site and/or along the Highway 47 corridor.

Policy 9 of the Transportation section of the Comprehensive Plan is applicable to this project. Policy 9 restricts the location of high voltage transmission lines to within existing rights-of-way whenever possible. Although this Site Design Review is specific to tax lot 4408-011-00901, it appears that West Oregon Electric intends to run their transmission lines within the right-of-way of Highway 47 wherever possible. The applicant submitted a copy of the Oregon Department of Transportation (ODOT) permit application for use of the Highway 47 ROW that they submitted to ODOT as part of this application. Additionally, ODOT was notified of the request and had no objection to its approval as submitted, as long as the same access (currently being used) will continue to be used. The safety and efficiency of the transportation network in the area, including that of State Highway 47, will not be compromised as a result of this proposal. Staff finds that Part XIII of the Comprehensive Plan has been satisfied.

Continuing with Columbia County Comprehensive Plan (Public Facilities and Services)

Finding 3.c: Part XIV (Public Facilities & Services): The goal of Part XIV is to plan and develop a timely, orderly, and efficient arrangement of public services as a framework for urban and rural development. As stated in the County's Comprehensive Plan, the location

of transmission lines and substations involves serious land use consideration, as it involves allocating land away from densely populated areas and arranging land uses to attain the greatest possible degree of energy conservation. The Comprehensive Plan also addresses the need to keep primary transmission lines out of prime forest areas and to site public facilities on lands within urban growth boundaries or built and committed exception areas.

The subject property is approximately 8.15 acres in size and is surrounded to the north by a ± 9.05 acre parcel and a ± 1.37 acre parcel, to the east (across Highway 47) by lots ranging in size between one and two acres, to the south by a ± 6.77 acre parcel and to the west by an approximate 73.63 acre parcel. Properties north, east and south of the site are zoned RR-5 and the property west of the site is zoned PF-76. The site is located near the City of Vernonia, approximately $\frac{1}{4}$ mile south of the city, in a relatively low density residential area. Higher density residential development (the one to two acre lots), with the exception of two lots north of the site, are separated from the subject property by State Highway 47. This (surrounding) rural residential area, although not within an Urban Growth Boundary, was acknowledged in 1984 with its RR-5 zoning as being a built and committed exception area. As stated previously, the Comprehensive Plan encourages siting public facilities in such exception areas.

Also, although the site abuts resource zoned land to the west, as discussed in Finding 5, the Deputy Chief for the Vernonia Rural Fire Protection District, has stated that the setbacks for the proposed substation from property lines (specifically 221 feet from the west property line) are sufficient for fire safety. Furthermore, in accordance with the Comprehensive Plan's suggestion to keep primary transmission lines out of prime forest areas, the transmission lines proposed as part of this project will travel away from the forested property west of the site. Lines extend out from the substation in an easterly direction toward Highway 47. Additionally, some existing overhead lines will be replaced with underground lines further reducing the potential for fire hazards. By locating the new substation relatively near a city, consisting of dense residential and commercial development, but in a low density, previously acknowledged exception area, impacts to forest resources and residential properties are minimized and an energy efficient land use pattern is maximized.

Finally, the siting of a new electrical power substation at this location is necessary to support the provision of reliable energy service to Columbia County residences and businesses. The existing (Anderson Park) primary substation is more than 40 years old with a 40 year design expectancy, and both the primary and secondary substations are located within the 100-year floodplain. According to the applicant, neither of the existing substations are accessible when flooding occurs, and in November of 2009, there were approximately 500 interruptions of service due to downed trees in windstorms. The project, as proposed, sites the new substation out of a flood hazard area, and replaces transmission and distribution lines to improve reliability. The physical location and site characteristics of the property are supportive of an efficient arrangement of services for the provision of electricity to both urban and rural development in the area. Staff finds that Part XIV of the Comprehensive

Plan has been satisfied.

Continuing with Columbia County Comprehensive Plan (Open Space, Scenic, Historic and Natural Areas)

Finding 3.d: Part XVI (Goal 5: Open Space, Scenic and Historic Areas, and Natural Areas): The purpose of this Part of the Comprehensive Plan is to conserve open space and protect the identified natural and scenic resources in Columbia County as defined by Statewide Planning Goal 5 and the related administrative rule. In order to meet the requirements of Statewide Planning Goal 5, the proposal's impacts on the following resources shall be evaluated: Fish and Wildlife Habitat, Water Resources, and Historic and Cultural Areas. Other resources identified by Goal 5 that are not listed, are not applicable to this request.

Article VIII. Fish and Wildlife Habitat: The Goal of Article VIII is to protect and maintain important habitat areas for fish and wildlife in Columbia County. The County's Comprehensive Plan discusses Big Game, Columbian White-Tailed Deer, Fish, Furbearer, Waterfowl, Non-Game Wildlife and Upland Game Habitats. The applicant provided a detailed and accurate discussion of the proposal as it pertains to fish and wildlife habitat on the subject property and within the project vicinity. The applicant's response to this part of the Comprehensive Plan is as follows:

"The Comprehensive Plan states that lands that have been zoned Rural Residential (*such as the subject property prior to PA 11-02 and ZC 11-01*) are areas for which an acknowledged "built and committed" exception to big game habitat has been taken and such exception areas are exempt from the development siting standards of the CCZO found in the Big Game Range Overlay District. Therefore, the subject property is not considered big game habitat. The subject property is not within the designated Columbian white-tailed deer habitat.

A biologist conducted a site visit on February 4, 2010 and completed an Endangered Species Act Review memorandum for the proposed project on March 18, 2010. The following listed species that occur in Columbia County are: Columbian white-tailed deer, northern spotted owl, coho salmon, water howelia, and Nelson's checkermallow. Of the five threatened and endangered species listed, the only species that would likely occur in the general project vicinity would be coho salmon, which occur in the Nehalem River, which runs parallel to the subject site to the east. Suitable habitat does not exist within the project area for the other four species.

The memorandum determined that the project would have no effect on listed or proposed species, and designated critical habitat because of the following. Any new construction would occur on a previously developed parcel. The project will not remove stream side trees and riparian vegetation. The project will comply with all state and local building codes and stormwater regulations. All stormwater will infiltrate and will not be discharged to a salmon bearing stream or proposed/designated critical

habitat. However, due to the project's close proximity to the Nehalem River, which does provide habitat for listed coho salmon, as well as wetlands, the memorandum highly recommended that an erosion control plan be prepared prior to any ground disturbing activities, and that erosion control monitoring should occur during construction and shortly thereafter." *The applicant's Stormwater and Erosion Control Plan is discussed in Finding 21 of this report.*

There are no fish or wildlife resources on the subject property. Therefore, the map amendment and zone change are consistent with Article VIII of the Comprehensive Plan.

Wetlands and Water Resources: It is the goal of the Water Resources section of the Comprehensive Plan to protect and maintain the quality of water resources in Columbia County. Policies 3 and 14 specifically address wetlands. Although the Vernonia, Oregon National Wetland Inventory (NWI) Map does not identify wetlands on the subject property, an on site wetland reconnaissance prepared by David Evans and Associates Inc. identified an approximate 1.08 acre Palustrine Forested (PFO) wetland at the west end of the property along Highway 47. A small, seasonal, intermittent creek flows south into this wetland, where the creek and wetland are then drained by a culvert underneath Highway 47 into another wetland on the east side of the highway. Policy 3 advocates for the protection of wetlands to protect recharge areas for groundwater resources, and Policy 14 prohibits wetlands from filling, draining, or other alterations which would destroy or reduce their biological value. As stated by the applicant, "The installation of the proposed substation, lines, poles, and vaults has been designed to avoid impacts to natural resources. The project will avoid the wetland by boring under it where necessary. The Stormwater and Erosion Control Report for the project incorporates water quality treatment into the project design. Erosion control measures during construction will prevent any sediment from the project entering nearby wetlands and waters. Thus no impacts to wetlands, waterways, or water quality are anticipated." Section 1182 of the Columbia County Zoning Ordinance regulates permitted and prohibited uses within designated wetland areas. Development of the subject property shall comply with this Section of the Zoning Ordinance (see Finding 14). Therefore, the request is consistent with the Wetlands and Water Resources sections of the Comprehensive Plan.

Article XI. Historic and Cultural Areas: It is the goal of Article XI to encourage the preservation and maintenance of cultural and historical sites, and to identify and preserve new sites. The subject property is not identified by Columbia County's Comprehensive Plan as a significant historic resource. Additionally, an archaeological reconnaissance conducted by Archaeological Investigations Northwest, Inc. identified the project site as having high potential for pre-contact archeological deposits, but determined, through excavations of the site, that there were no archaeological materials present on the subject property. Therefore, the proposal is consistent with Article XI of the Comprehensive Plan.

Continuing with Columbia County Comprehensive Plan (Air, Land and Water Quality)

Finding 3.e: Part XVIII (Air, Land and Water Quality): The only section of Part XVIII applicable to this application is the Noise section. The goal of the Noise section of the Comprehensive Plan is to control and limit the adverse impacts of noise. See Finding 2 for a detailed discussion on the potential noise impacts associated with an electrical power substation. In summary, the substation will generate some noise, described by the applicant as a low hum. The anticipated decibel level of this noise at the property lines is between 30 db and 40 db. The Temple University Department of Civil/Environmental Engineering has identified 40 db as equivalent to the noise level of a library and 30 db as equivalent to a quiet rural area. According to the applicant, the amount of noise generated by the substation will be significantly lower than that which is permitted by the Department of Environmental Quality. The Oregon Department of Environmental Quality's Noise Control Regulations, as outlined in OAR 340-035-0035(1)(b) and its associated Table 8, prohibit new industrial and commercial noise sources from exceeding 55 dBA in any one hour between the hours of 7 am and 10 pm and 50 dBA between the hours of 10 pm and 7 am. Although the map amendment and zone change is proposed for a property surrounded to the north and south by residential properties (Note: Residential properties east of the site are separated from the property by Highway 47), based on the noise impact analysis submitted by the applicant, it does not appear that the noise generated by the substation will be significant enough to qualify as a source of noise pollution. Staff finds that the proposal is consistent with Part XVIII of the Comprehensive Plan.

Continuing with Columbia County Comprehensive Plan (Natural Disasters and Hazards)

Finding 3.f: Part XIX (Natural Disasters and Hazards): The Floodplain section of Part XIX is applicable to this application. The Goal of the Floodplain section is to eliminate or reduce the economic and social costs created by flood caused damages. As stated by the applicant, "The purpose of the proposed project is to construct a new main substation at the pole yard outside the floodplain." As per FEMA Flood Insurance Rate Map (FIRM) No. 41009CO377 D, West Oregon Electric's existing primary substation, located within the city limits of Vernonia, is located within the 100-year floodplain (Zone AE). Likewise, as per FEMA FIRM No. 41009CO381 D, WOEC's back-up substation is located within the 100-year floodplain (Zone AE), with a portion of the property also located within the floodway. As discussed previously in this report, the existing substations are inaccessible during flood conditions. Alternately, the subject property is not located within a flood hazard area. If the comprehensive plan map amendment and zone change are approved, the applicant intends to dismantle the existing back up substation and use the existing primary substation as a backup to the proposed new substation. Currently, because West Oregon Electric's substations are located within flood prone areas, power service to residents in the area can be unreliable and is often disrupted. Locating a new substation outside of the floodplain would eliminate and/or reduce the economic and social costs created by flood caused damages. As such, the proposal is consistent with Part XIX of the Comprehensive Plan.

Continuing with the Columbia County Zoning Ordinance Section 1013

- .3 The proposal will not create hazardous conditions that cannot be addressed with appropriate safeguards.

Finding 4: Finding 2 addresses the potential for certain types of hazardous conditions, such as an increased electric and magnetic field resulting from the new substation and transmission lines. As discussed in Finding 2, electric and magnetic fields decrease with distance from the source. Therefore, the applicant has concluded that there will be very little increase in EMF to neighboring residential properties based on the proximity of the proposed substation and transmission lines to surrounding existing dwellings (see attached discussion on EMF). The applicant further addresses other hazardous conditions associated with the proposed use as follows:

The transformers in the proposed new substation would contain 3,200 gallons of dielectric fluid (a fluid that does not conduct an electric current under normal circumstances) that serves as a cooling medium for the protection of internal components. The type of fluid WOEC anticipates using is considered fire resistant, and is made of edible seed oils and/or soy with no toxic substances. The proposed transmission and distribution lines, vaults, and poles would contain no toxic, hazardous, or radioactive materials.

WOEC occasionally tests, drains, dismantles, and disposes of existing transformers. The transformers contain cooling fluid with less than five parts per million of hazardous material. The fluid would be drained prior to removal, and the fluid and the transformer components would be disposed of in compliance with applicable regulations in a hazardous material disposal facility in Salem, Oregon. The poles that are currently used, and some of which will be removed, most likely contain creosote. The poles will be taken to an appropriate facility to be disposed of according to DEQ regulations.

As a Condition of Approval, the applicant shall be required to dispose of all hazardous materials in accordance with DEQ regulations. Based on information provided by the applicant, it does not appear that the proposal will create hazardous conditions that cannot be addressed with appropriate safeguards. See Finding 2 for other potential hazards and mitigation strategies. Staff finds that the criterion is met subject to conditions.

Continuing with the Columbia County Zoning Ordinance Section 1013

- .4 The proposal will not adversely affect existing agricultural or forestry uses or practices in the area.

Finding 5: As discussed previously in this report, the subject property is surrounded to the north, east and south by RR-5 zoned properties and to the west by a PF-76 zoned property. The RR-5 zoned properties in the area are developed residentially and are not employed (for the most part) for commercial agricultural or forest production. The adjacent PF-76 zoned property is approximately 73.63 acres in size and consists of vacant timber land. The subject property has been used as a maintenance and storage yard for West Oregon Electric since the early 1980s and has coexisted adjacent to this forested property for almost 30 years without adversely affecting timber management of the site. Furthermore, it is not anticipated that the addition of the proposed substation and transmission lines will be detrimental to resource uses or practices within the area.

There is a slight risk of fire hazard associated with the proposed use that, although unlikely, could impact forested lands in the area. The applicant submitted a letter from the Deputy Chief for the Vernonia Rural Fire Protection District addressing the proposed location of the substation on the subject property as it pertains to fire safety. The District provides Fire, EMS, and Rescue services for the Vernonia Substation and Distribution Line project area. The letter states the following:

“I have reviewed the above referenced project’s features for safety concerns. The new substation will be setback approximately 78 feet from the closest property line (the north property line), 221 feet from the west property line, 340 feet from the south, and 359 feet from the east. The new substation would be approximately 35 feet from the closest structure—a concrete pad, and approximately 60 feet from an existing shed on the property. I believe these setbacks are adequate for safety. I would like to ensure that we have access to all sides of the substation for defensive fire attacks in the event of an emergency. Preferred space would be enough to drive a small brush fire truck around the perimeter...”

As a Condition of Final Approval, the applicant shall submit a revised site plan demonstrating that there is access to all sides of the substation for fire fighting equipment. Said plan shall be reviewed and approved by the Vernonia RFPD. Similarly, because the driveway exceeds 150 feet in length, the driveway shall be constructed to fire apparatus access standards. The applicant shall provide verification to Land Development Services that the Fire District has approved the driveway for such access.

Finally, although there are overhead power lines proposed as part of this project, part of the proposal replaces existing overhead power lines with underground power lines. This will reduce the potential for electrical sparks to set trees on fire. As such, although there is the potential for fire, with the appropriate safeguards (as discussed in this finding) the increase in fire risk and the potential for adverse impacts to forested properties in the area is minimal. Staff finds that the criterion is met subject to conditions.

Continuing with the Columbia County Zoning Ordinance Section 1013

- .5 A new CS-U use within the Urban Growth Boundary shall be served by public water and public sewer when necessary for the use. The Commission may waive the requirement for connection to public sewer if it can be shown that the proposed use can be safely served in another manner. In this case, the Commission shall require the CS-U use be connected to public sewer when it becomes available to the site.

Finding 6: The subject property is not located within an Urban Growth Boundary, and is therefore not required to be connected to public water or sewer. The criterion does not apply.

Continuing with the Columbia County Zoning Ordinance Section 1014

- 1014 Conditions of Approval: The approval authority may consider the following factors in addressing the impacts created by the proposed use, and impose any conditions necessary to mitigate the impact.

- .1 Landscaping, berming, fencing, or screening.

Finding 7: Landscaping of the site is discussed in detail in Finding 17 of this report. In summary,

however, the periphery of the property is densely forested with Alder, Douglas-Fir and Red Cedar in every direction (except along the west property line) which screens the site from view (see aerial photograph on page 5). Although a buffer does not exist between the developed portion of the site and the PF-76 zoned property to the west, said property is not developed residentially and is intended for resource use. The neighboring property owners south of the site have expressed concerns regarding the visibility of the substation and transmission lines from their property. To mitigate the proposal's visual impacts to this property and properties north and east of the site, the applicant shall be required to provide additional plantings along the south, east and north property lines, or submit documentation (through a landscape plan) that the existing vegetation is sufficient for screening in said directions.

The applicant also addresses fencing in the application. West Oregon Electric plans to install 440 feet of new fence around the proposed substation. As stated by the applicant, "The fence will consist of $\frac{3}{8}$ - inch, mini-mesh, 9-gauge pattern. It will have razor ribbon, on top. Total height above ground, including the razor ribbon, will be 8 feet." Fencing of the substation serves more as a safety feature for the use than a visual buffer, but reduces the risk of the proposed use from becoming a safety hazard for neighboring property owners. The combination of fencing, existing vegetation, and new vegetation should reduce any impacts to neighboring properties from the proposed use. Staff finds that the criterion is met subject to conditions.

.2 Off-street parking as provided in Section 1400.

Finding 8: Finding 16 addresses the requirements of Section 1400 of the Columbia County Zoning Ordinance. The County's Zoning Ordinance does not specifically address the number of parking spaces required for an electrical power substation and related uses. Therefore, Staff has calculated the required number of parking spaces for the proposed use based on similar uses outlined in CCZO Section 1416. Currently, the site is used for the storage of vehicles, transformers and poles related to West Oregon Electric's service operations. The fenced area of the existing storage yard is approximately 36,130 square feet in size. CCZO Section 1416.5 requires the following number of parking spaces for industrial storage uses: One space for each 5,000 square feet for the first 20,000 square feet plus 1 additional space for each additional 50,000 square feet. Using these calculations, the applicant is required to provide 5 parking spaces for the storage use. CCZO Section 1417 allows the director to make a determination on the number of parking spaces required for uses not specifically listed in the parking standards section of the Zoning Ordinance. Based on the monthly maintenance trip necessary for the new substation, the director has determined that the applicant shall also provide one additional space for the new electrical power substation. Finally, Section 1418.3 of the County's Zoning Ordinance requires two loading spaces for storage uses between 5,000 and 39,000 square feet in size. As such, a total of eight parking spaces are necessary to accommodate the existing and proposed uses of the site.

As stated by the applicant, "There is a graveled area outside the fenced storage yard of the pole yard property that WOEC workers use to park vehicles. WOEC proposes to re-grade and re-gravel this area to expand the turnaround from the existing driveway. There is no striping. Workers park there temporarily..." Specific design standards of the parking are addressed in Finding 16. The parking

area described by the applicant is more than sufficient to meet the eight parking spaces required by Section 1400 of the Columbia County Zoning Ordinance. Staff finds that the criterion is met subject to conditions.

.3 Limitations on the type and amount of external lighting.

Finding 9: Section 1563.E of the Columbia County Zoning Ordinance requires all outdoor lights to be shielded so as not to shine directly on adjacent properties and roads. In regard to lighting, the applicant states the following:

WOEC proposes to install eight 100-watt high-pressure exterior sodium lights mounted on the substation structures at the pole yard. The lights would illuminate the area, but would not be directed toward adjacent properties. The existing trees at the pole yard would screen the lighting so that it would not be visible from adjacent properties.”

The applicant submitted lighting plans demonstrating the location of lights, mounting details and specifications as part of this application. The applicant shall be responsible for ensuring that the proposed lighting will not shine onto neighboring properties or Highway 47. As discussed in Finding 7 previously, the applicant shall be required to provide additional plantings along the site’s south property line and maintain (at a minimum) the existing vegetative buffer that is located on the periphery of the property. Such conditions will help mitigate any impacts to surrounding properties from lights mounted on the new substation. Staff finds that the criterion is met subject to conditions.

.4 Limitations on the number and location of access points which connect with County roads or public ways,

Finding 10: Highway 47 (a state highway) travels along the site’s east property line and provides direct access to and from the subject property. Access to the site is obtained from the highway via a 16’ wide, gravel driveway that travels more than 200 feet over the adjacent property to the south (tax lot 4408-011-00900) before crossing onto the subject property. An easement for said access is recorded in Deed Book 232, Page 885. The existing driveway will continue to be used by West Oregon Electric. No new access points are proposed as part of this request. The Oregon Department of Transportation (ODOT) was notified of the proposal and has no objection to its approval as submitted (as long as the existing access is used to serve the proposed substation). Staff finds that the criterion is met.

.5 Such other factors and conditions, such as setbacks, unloading, construction standards, maintenance and landscaping requirements or any other factor appropriate under the circumstances necessary to protect the public health, safety and welfare.

Finding 11: It does not appear that the proposal will be detrimental to public health, safety and/or welfare. As discussed in Finding 5 of this report, the Deputy Chief for the Vernonia Rural Fire Protection District reviewed the proposal to ensure that the new substation would be setback a distance from property lines sufficient for fire safety and access. The Deputy Chief had no objection to the setbacks as submitted, 78 feet from the north property line, 221 feet from the west property

line, 340 feet from the south property line and 359 feet from the east property line. Additionally, a Condition of Approval is included requiring that the applicant provide fire apparatus access to all sides of the substation. The applicant shall also provide verification from the RFPD to Land Development Services that the driveway has been constructed to Fire Apparatus Access Standards. In addition to fire safety, the applicant submitted a Safety Plan for Construction of the site. This plan is identified as Appendix K and is attached to the application. Finding 2 specifically addresses the proposal's potential for other impacts to surrounding properties as they relate to dust, aesthetics, noise and EMF. See Finding 2 for a detailed discussion of how potential impacts related to said issues may be mitigated and/or are not anticipated to provide significant off-site impacts. In summary, additional landscaping shall be required; the driveway shall be watered during construction to reduce dust; following construction, a portion of the driveway shall be paved; and the applicant shall be required to submit post construction documentation that the substation is operating at a noise level consistent with DEQ noise standards. Based on mitigation strategies discussed throughout this report and reflected in the Conditions of Final Approval, it is not anticipated that the addition of a new electrical power substation on the subject property will significantly impact surrounding properties. Staff finds that the criterion is met subject to conditions.

.6 Signs shall be provided in accordance with Section 1300.

Finding 12: The applicant is not proposing signage as part of this application. However, if a sign is proposed at some point in the future, design of said sign shall be consistent with Section 1300 of the Columbia County Zoning Ordinance, and building permits (for the sign) shall be required. Staff finds that the criterion is met subject to conditions.

1015 Standards:

- .1 There is no designated minimum lot or parcel size. The Commission shall review each proposal on a case by case basis and determine if the site is adequate for the proposed use. They shall review the site plan of the proposal and determine if the site meets all the provisions of this Ordinance, including the off-street parking requirements of Section 1400.
- .2 There are no designated minimum setbacks in this district. The applicant shall submit a letter from the Fire Marshall concerning the necessary setbacks for safety. After reviewing the letter and the adjacent land uses, the Commission shall establish setback requirements for each individual site.

Finding 13: The subject property is approximately 8.15 acres in size and is more than sufficient to accommodate the existing pole/storage yard, the new electrical power substation and the off-street parking requirements of Section 1400 of the County's Zoning Ordinance. The existing fenced storage yard encompasses approximately 36,000 square feet of the subject property, and the footprint of the proposed substation is approximately 110' x 110', for a total area of ± 12,100 square feet. These areas combined take up less than one acre of the approximate eight acre site. As discussed in Findings 8 and 16, there shall be eight parking spaces to accommodate the existing and proposed use. The site plan submitted by the applicant identifies a large gravel area south of the fenced pole yard and proposed substation capable of accommodating parking and vehicle circulation on the subject property. The size of this area exceeds that which is necessary to meet the required eight

parking spaces.

As discussed in Finding 5 previously, the applicant has submitted a letter from the Deputy Chief of the Vernonia Rural Fire Protection District regarding setbacks of the proposed use from property lines. The site plan, as submitted by the applicant, shows the substation 78 feet from the north property line, 221 feet from the west property line, 340 feet from the south property line and 359 feet from the east property line. The Deputy Chief commented that the setbacks, as proposed, are adequate for fire safety. Staff finds that the criterion will be met with a Site Design Review.

Continuing with Columbia County Zoning Ordinance Section 1182 Wetland Area Overlay

Section 1182 WETLAND AREA OVERLAY

1185 Development Standards:

5. Wetlands not Associated with Streams, Rivers, Sloughs, or Fishbearing Lakes. Along all wetlands not associated with a stream, river, slough, or non-fish-bearing lake, there shall not be a protective riparian corridor boundary. However, development is prohibited from encroaching within a delineated wetland boundary.

Finding 14: As discussed in the background section of this report, the subject property contains an approximate 1.08 acre palustrine forested (PFO) wetland at the west end of the property along Highway 47. This wetland is not mapped in the Vernonia, Oregon National Wetland Inventory, but was identified through a wetland reconnaissance (included as Appendix E of the application) prepared by David Evans and Associates, Inc. A small, seasonal, intermittent creek, crossing the northeast corner of the property, flows south into this wetland. The creek and wetland are then drained by an existing culvert underneath Highway 47 into wetlands on the east side of the Highway. Wetlands east of Highway 47, between the highway and the Banks Vernonia Trail, are described in the wetland reconnaissance as deep roadside ditches. The applicant describes impacts to the wetlands from the proposed project as follows:

“The project has been designed to avoid impacts to natural resources. The project will avoid nearby wetlands by boring under them where necessary. The Stormwater and Erosion Control Report for the project (Appendix G) incorporates water quality treatment into the project design. Erosion control measures (Appendix G) during construction will prevent any sediment from the project from entering the nearby wetlands and waters. Thus, no impacts to wetlands, waterways, or water quality are anticipated...Because the project intention is to avoid all wetlands and waterways, a formal wetland delineation is likely not needed, and no mitigation is needed.”

To ensure that the wetland onsite will not be impacted by the proposed use, the applicant shall submit documentation to Land Development Services from the Division of State Lands (DSL) verifying that DSL permits are not necessary for the project. If wetlands are impacted as a result of the proposed use, DSL permits shall be required and documentation of such provided to Land Development Services. Staff finds that the criterion is met subject to conditions.

Continuing with Columbia County Zoning Ordinance Section 1300 Signs

1313 Commercial and Industrial Districts: *[Amended by Ordinance 2002-02, eff. 6/12/02].*

- .1 Signs Permitted: Signs shall be permitted in Commercial and Industrial zoning districts subject to the provisions of this Section, except to the extent such provisions conflict with the specific development standards for signs in the underlying zoning district.

Finding 15: There are no signs proposed as part of this project. However, if a sign is proposed at some point in the future, the sign shall meet all applicable standards of Section 1300 of the Columbia County Zoning Ordinance. Prior to installment of a sign, the applicant shall apply for a sign permit. Compliance with Section 1300 of said ordinance will be reviewed at which time the applicant submits for a permit. Additionally, ODOT regulations may apply to the design of the sign, as the site fronts onto a State Highway. Staff finds that the criterion is not applicable at this time, but that if a sign is proposed, the criterion can be met subject to conditions.

Continuing with Columbia County Zoning Ordinance Section 1400 Off-Street Parking & Loading

1406 Location:

- .1 Spaces required by this section shall be provided on the site of the primary uses, provided that, when practical difficulties prevent their establishment upon the same site, the Planning Director may permit the facility to be located within 300 feet therefrom, measured in a straight line (including streets and alleys) from the nearest property line to the nearest parking space; but in any case the location shall meet all provisions of this ordinance which apply.
- .2 Loading spaces and maneuvering area shall be located only on or abutting the property served.

1407 Change of Use: In case of enlargement or change of use, the number of parking or loading spaces required shall be based upon the total area involved in the enlargement or change in use.

1408 Design Standards:

- .1 Scope:
 - A. These design standards shall apply to all parking, loading, and maneuvering areas except those for single and two-family residential dwellings on individual lots.
 - B. All parking and loading areas shall provide for the turning, maneuvering, and parking of all vehicles on the lots.

1409 Loading Spaces:

- .1 Apartment: Each required space shall be at least 12 feet in width and 25 feet in length.

- .2 Commercial: Each required space shall be at least 12 feet in width and 35 feet in length.
- .3 Industrial: Each required space shall be at least 12 feet in width and 60 feet in length.
- .4 Clearance: The height of each required loading space shall provide a minimum vertical clearance of 13 feet.

1410 Size:

- .1 The standard size of a parking space shall be 9 feet by 18 feet.
- .2 Handicapped parking spaces shall be 12 feet by 18 feet.
- .3 Parallel parking, the length of the parking space shall be increased to 22 feet.

1411 Aisles: Aisles shall not be less than:

- .1 25'0" in width for 90 degree parking;
- .2 20'0" in width for 60 degree parking;
- .3 20'0" in width for 45 degree parking; and
- .4 12'0" in width for parallel parking.

1412 Access: There shall be no more than one 45 foot wide curb cut driveway per 150 feet of street frontage, or fraction thereof, permitted per site.

1413 Surfacing and Marking:

- .1 The surfacing of each parking area shall meet minimum County standards to handle the weight of the vehicles which will use the parking area. All areas used for parking and maneuvering of vehicles shall be marked in accordance with the approved plan and such marking shall be continuously maintained. Handicapped parking spaces shall be marked with a wheelchair symbol.
- .2 The parking and loading areas for commercial, industrial, or apartment uses shall be paved with concrete, asphaltic concrete, or another comparable surface.

1414 Drainage and Lighting: Adequate drainage shall be provided to dispose of the run-off generated by the impervious surface area to the parking area. The drainage system shall function so it will not adversely affect adjoining property. Artificial lighting shall be provided in such a manner as to insure the safety of the parking area without interfering with adjoining properties or creating traffic hazards on adjoining streets.

1415 Parking Areas: All parking areas, excluding one and two-family dwellings, shall meet the following requirements:

- .1 All parking areas of less than 20 parking spaces shall have one handicapped parking space. Parking areas with more than 20 spaces shall provide one handicapped parking space for every 50 standard parking spaces.

- .2 All parking areas shall be divided into bays of not more than 20 parking spaces. Between, and at the end of each parking bay, there shall be planters which have a minimum width of 5 feet and be at least 17 feet in length. Each planter shall contain one major structural tree and ground cover which has been deemed appropriate by the Director. Truck loading areas need not comply with the preceding requirements.
- .3 Parking areas shall be separated from the exterior wall of a structure, exclusive of paved pedestrian entrance-ways, by a 5 foot strip of landscaping.
- .4 Industrial or commercial parking areas, which abut a residential or apartment district, shall meet the building setback of the most restrictive adjoining residential or apartment district.
- .5 When industrial or commercial parking areas adjoin a residential or apartment district, there shall be a sight obscuring planting, which is at least 80 percent opaque and when viewed horizontally from between 2 and 8 feet above ground level. This planting shall be composed of materials which are an adequate size so as to achieve the required degree of screening within 12 months after installation.
- .6 Parking areas shall be set back from a lot or parcel line adjoining a street. The setback area shall be landscaped.
- .7 All parking area setbacks shall be landscaped with major trees, shrubs, and ground cover as approved by the Director.
- .8 A minimum of 10 percent of the parking area shall be landscaped and maintenance of the landscaping shall be the owner's responsibility.

1416 Minimum Require Off-Street Parking Spaces:

.5 Industry:

Storage

One space for each 5,000 s.f. for the first 20,000 s.f. plus 1 additional space for each additional 50,000 s.f.

1417 Unspecified Uses: Any use not specifically listed in the foregoing list shall have the requirements of the listed use or uses deemed equivalent by the Director.

1418 Minimum Required Off-Street Loading Spaces

Manufacturing, Wholesale, Storage or Hospital 5,000 to 39,000 Square Feet of Floor or Land Area	2 Spaces
--	----------

Finding 16: Off-street parking spaces are proposed to be located directly south of the existing fenced storage yard (see proposed site plan). This is the same area that workers have used for parking for more than 20 years. As part of this proposal, West Oregon Electric plans to regrade and re-gravel this area to expand the turnaround from the existing driveway. As discussed in Finding 8 previously, in accordance with CCZO Sections 1416.5, 1417 and 1418, the storage use of the property requires five parking spaces and two loading spaces, and the new substation will require one additional space, for a total of eight parking spaces. The parking area proposed by the applicant is more than

sufficient to accommodate the required number of spaces. The gravel area south of the fenced storage yard also wraps around the east side of the storage yard and the south side of the proposed new substation. This area can easily accommodate spaces for loading and unloading with access aisles of more than 25' in width. Finally, in regard to the types of parking spaces required for this project, parking and loading spaces are used by West Oregon Electric employees only. The site is not open, nor accessible to the public. Therefore, a handicapped parking space shall not be required.

Based on the nature of the proposed use, for the storage and maintenance of electrical power equipment, many of the parking standards outlined in Section 1400 of the County's Zoning Ordinance are not applicable to this request. Neither paving nor striping of individual parking spaces shall be required. Parking, loading and vehicle maneuvering areas may remain surfaced with gravel. A graveled surface is more conducive to large truck traffic and drainage of the site than an asphalt surface. The impervious nature of the gravel should result in minimal impacts to drainage of the site. The applicant submitted a Stormwater and Erosion Control Plan as part of the application. Said plan was prepared by a professional engineer and includes narrative, maps and calculations demonstrating that the drainage system of the subject property will function in a manner so as not to adversely affect neighboring properties or roadways in the area.

Also, in accordance with Section 1414 of the County's Zoning Ordinance, off-street parking areas shall be lighted. Lighting shall be shielded to prevent glare onto adjacent properties, abutting rights-of-way and skyward for aircraft. The applicant proposes to mount lighting on the new substation. According to the applicant, this lighting will illuminate the area, but will not be directed toward adjacent properties. The lighting, as proposed, is sufficient to meet the lighting requirements for off-street parking areas. As a condition of approval, lighting shall be shielded from adjacent streets and residential properties.

The parking area, as proposed, will be located at least 160 feet from the south property line. Section 1415.4 of the Columbia County Zoning Ordinance requires industrial or commercial parking areas, which abut a residential district, to meet the building setback requirements of the most restrictive adjoining residential district. The adjacent property south of the site is zoned Rural Residential-5 (RR-5). The RR-5 Zone has a building setback from property lines of 30'. Therefore, the parking area shall be located at least 30 feet from the south property line. This standard is far exceeded by the subject proposal. Additionally, the parking area shall be separated from all surrounding residential properties by plantings that are at least 80 percent opaque in accordance with CCZO Section 1415.5. The perimeter of the site is heavily forested, which (for the most part) screens the site from view from neighboring properties and the highway. The applicant shall be required to submit a landscape plan, demonstrating that the criterion of Section 1415.5 will be satisfied. This plan shall include the types and locations of plantings. CCZO Section 1415 also requires plantings within the parking area. The parking area will not be visible to surrounding properties and the graveled area is needed for the maneuverability of trucks and equipment. As such, internal landscaping of the parking area shall not be required. Staff finds that the criterion is met subject to conditions.

Continuing with Columbia County Zoning Ordinance Section 1550 Site Design Review

1562 Landscaping: Buffering, Screening and Fencing:

A. General Provisions:

1. Existing plant materials on a site shall be protected to prevent erosion. Existing trees and shrubs may be used to meet landscaping requirements if no cutting or filling takes place within the dripline of the trees or shrubs.
2. All wooded areas, significant clumps or groves of trees, and specimen conifers, oaks or other large deciduous trees, shall be preserved or replaced by new plantings of similar size or character.

B. Buffering Requirements:

1. Buffering and/or screening are required to reduce the impacts on adjacent uses which are of a different type. When different uses are separated by a right of way, buffering, but not screening, may be required.
2. A buffer consists of an area within a required setback adjacent to a property line, having a width of up to 10 feet, except where the Planning Commission requires a greater width, and a length equal to the length of the property line adjacent to the abutting use or uses.
3. Buffer areas shall be limited to utilities, screening, pedestrian and bicycle paths, and landscaping. No buildings, roads, or parking areas shall be allowed in a buffer area.
4. The minimum improvements within a buffer area shall include:
 - a. One row of trees, or groupings of trees equivalent to one row of trees. At the time of planting, these trees shall not be less than 10 feet high for deciduous trees and 5 feet high for evergreen trees, measured from the ground to the top of the tree after planting. Spacing of trees at maturity shall be sufficient to provide a year-round buffer.
 - b. In addition, at least one 5-gallon shrub shall be planted for each 100 square feet of required buffer area.
 - c. The remaining area shall be planted in grass or ground cover, or spread with bark mulch or other appropriate ground cover (e.g. round rock). Pedestrian and bicycle paths are permitted in buffer areas.

C. Screening Requirements:

1. Where screening is required, the following standards shall apply in addition to those required for buffering:
 - a. A hedge of evergreen shrubs shall be planted which will form a four-foot high continuous screen within two years of planting; or,

- b. An earthen berm planted with evergreen plant materials shall be provided which will form a continuous screen six feet in height within two years. The unplanted portion of the berm shall be planted in lawn, ground cover or bark mulch; or,
 - c. A five foot or taller fence or wall shall be constructed to provide a continuous sight obscuring screen. Fences and walls shall be constructed of any materials commonly used in the construction of fences and walls such as wood, brick, or other materials approved by the Director. Corrugated metal is not an acceptable fencing material. Chain link fences with slats may be used if combined with a continuous evergreen hedge.
2. When the new use is downhill from the adjoining zone or use being protected, the prescribed heights of required fences, walls, or landscape screening along the common property line shall be measured from the actual grade of the adjoining property at the common property line. This requirement may be waived by the adjacent property owner.
 3. If four or more off-street parking spaces are required, off-street parking adjacent to a public road shall provide a minimum of four square feet of landscaping for each lineal foot of street frontage. Such landscaping shall consist of landscaped berms or shrubbery at least 4 feet in total height at maturity. Additionally, one tree shall be provided for each 50 lineal feet of street frontage or fraction thereof.
 4. Landscaped parking areas may include special design features such as landscaped berms, decorative walls, and raised planters.
 5. Loading areas, outside storage, and service facilities must be screened from adjoining properties.

D. Fences and Walls:

1. Fences, walls or combinations of earthen berms and fences or walls up to four feet in height may be constructed within a required front yard. Rear and side yard fences, or berm/fence combinations behind the required front yard setback may be up to six feet in height.
2. The prescribed heights of required fences, walls, or landscaping shall be measured from the lowest of the adjoining levels of finished grade.
3. Fences and walls shall be constructed of any materials commonly used in the construction of fences and walls such as wood, brick, or other materials approved by the Director. Corrugated metal is not an acceptable fencing material. Chain link fences with slats may be used if combined with a continuous evergreen hedge.
4. Re-vegetation: Where natural vegetation or topsoil has been removed in areas not occupied by structures or landscaping, such areas shall be replanted to prevent erosion.

Finding 17: As demonstrated in the aerial photograph on Page 5 of this report, the site is buffered

from surrounding properties and roadways, north, east and south of the site by densely planted Alder, Douglas-Fir and Red Cedar trees. Staff noted on a recent site visit that the developed portion of the property was not visible from Highway 47 and did not appear to be significantly visible to the residential properties north and south of the site. However, to help mitigate the potential for noise and aesthetic impacts from the proposed use on surrounding residential properties, the applicant shall be required to submit a Landscape Plan to Land Development Services demonstrating that the developed portion of the site will be screened from the north, east and south property lines. Said landscaping shall be noise and sight obscuring to the greatest extent possible. Such landscaping is not required along the west property line abutting the PF-76 zoned property. A landscape plan shall be approved by Land Development Services prior to the issuance of building permits. Prior to final occupancy of the substation, landscaping (as approved by the Landscape Plan) shall be present on site. Staff finds that the criterion is met subject to conditions.

Continuing with Columbia County Zoning Ordinance Section 1550 Site Design Review

1563 Standards for Approval:

The Planning Commission or Director shall make a finding with respect to each of the following criteria when approving, approving with conditions, or denying an application:

- A. Flood Hazard Areas: See CCZO §1100, Flood Hazard Overlay Zone. All development in Flood Hazard Areas must comply with State and Federal Guidelines.
- B. Wetlands and Riparian Areas: Alteration of wetlands and riparian areas shall be in compliance with State and Federal laws.
- C. Natural Areas and Features: To the greatest practical extent possible, natural areas and features of the site shall be preserved.
- D. Historic and Cultural sites and structures: All historic and culturally significant sites and structures identified in the Comprehensive Plan, or identified for inclusion in the County Periodic Review, shall be protected if they still exist.
- E. Lighting: All outdoor lights shall be shielded so as to not shine directly on adjacent properties and roads.
- F. Energy Conservation: Buildings should be oriented to take advantage of natural energy saving elements such as the sun, landscaping and land forms.
- G. Transportation Facilities: Off-site auto and pedestrian facilities may be required by the Planning Commission, Planning Director or Public Works Director consistent with the Columbia County Road Standards and the Columbia County Transportation Systems Plan.

Finding 18: The criterion of Section 1563 of the Columbia County Zoning Ordinance are addressed in depth in other findings throughout this report. The subject property contains no floodplain and is a suitable site for the proposed use, as both of West Oregon Electric's substations currently in operation in the Vernonia area are located within the 100-year flood zone. See Finding 3.f for a detailed discussion on the flood hazard area as it pertains to this application. Likewise, the site does

not contain significant natural areas/features, or historic and/or cultural sites. See Finding 3.d for a discussion on these issues. There is a small wetland at the east end of the property that is not anticipated to be impacted by the subject proposal. Finding 14 provides a detailed analysis of the proposal as it pertains to potential impacts of said wetland. Transportation facilities are addressed in Findings 3.b and 10 of the report; energy conservation is addressed in Finding 3.c of the report; finally, lighting is addressed in Findings 9 and 16 of this report. Staff finds that the criterion is met subject to conditions.

Continuing with Columbia County Zoning Ordinance Section 1550 Site Design Review

1564 Final Site Plan Approval:

If the Planning Director or Planning Commission approves a preliminary site plan, the applicant shall finalize all the site drawings and submit them to the Director for review. If the Director finds the final site plan conforms with the preliminary site plan, as approved by the Director or Planning Commission, the Director shall give approval to the final site plan. Minor differences between the preliminary site plan and the final site plan may be approved by the Director. These plans shall be attached to the building permit application and shall become a part of that permit.

Finding 19: The site plan, once approved, is forwarded to the Building and other departments. Its contents dictate their review and standards. As such the site plan and landscape plan shall be approved before Building Permit applications are submitted. A final site plan and landscape plan shall be submitted for review and approval. All revisions as described herein shall be included. These plans shall be required before the submission of any Building Permits. Staff finds that the criterion is met subject to conditions.

Columbia County Stormwater and Erosion Control Ordinance Chapter I Introduction

B. Applicability

1. Provisions of this ordinance apply to:

- a. Building Permits for residential, commercial, industrial and accessory uses that involve disturbing more than 2000 square feet of land or activities disturbing more than 1000 square feet of land on sites with known and apparent erosion problems.

Finding 20: Development of the site will result in the disturbance of more than 2,000 square feet of land, and as such, is subject to the requirements of the County's Stormwater and Erosion Control Ordinance. Specifically, the proposed project will increase the amount of impervious surface on the subject property by 40,600 square feet. The applicant has also identified more than 50 cubic yards of grading and fill that will take place as a result of the proposed project. Therefore, a grade and fill permit will also be required.

Continuing with Columbia County Stormwater and Erosion Control Ordinance Chapter III Standards Specific to Activities

- B. Building Permits for Commercial, Industrial, Multi-Family, and Associated Accessory Uses
 - 1. Erosion Control
 - b. Erosion Control Plan
 - I. A Final Erosion Control Plan is required
 - ii. The plan shall be prepared by an Engineer
 - vi. A Building Permit will not be issued until the plan is approved by the County
 - 2. Long Term Water Quality Protection
 - c. Stormwater Plan
 - I. A Final Stormwater Plan is required
 - ii. The plan shall be prepared by an Engineer
 - vi. A Building Permit will not be issued until the plan is approved by the County

Finding 21: The applicant submitted an engineered Stormwater and Erosion Control Plan. This plan shall meet the requirements of the County's Stormwater and Erosion Control Ordinance, and shall be reviewed and approved by the Land Development Services Planning Division and Building Division. If revisions to the submitted Stormwater and Erosion Control Plan are required, there is the potential that the layout of the site plan may also need to be revised. A site plan shall be submitted at the time of building permit submittal, but approval of the Final Stormwater and Erosion Control Plan is not required until building permit issuance. Therefore, if the applicant chooses to submit building permits prior to final approval of the Stormwater and Erosion Control Plan, the applicant shall sign a deferral form acknowledging that he understands that other reviews are required and that submission of the building permit is at his own risk. The deferral form is provided to the applicant by the County. Prior to building permit issuance, Columbia County Planning and Building shall approve an engineered (self-certified and stamped) Stormwater and Erosion Control Plan for the subject property. Staff finds that the criterion is met subject to conditions.

COMMENTS RECEIVED:

City of Vernonia: No Objection; (1) Provide evidence of access easement across adjoining land to the south. Obtain ODOT construction/access easements; (2) After boring, return wetlands to natural state; (3) Determine exterior light fixture wattage; (4) Incorporate Stormwater Report requirements as well as Erosion Control Plan provisions; (5) Assure fluid is taken to Salem disposal facility and creosote piles are disposed of per DEG regulations; (6) Require tree root protection plan for boring sites in Anderson Park; (7) Require archaeological monitoring during construction in Anderson Park.

Upper Nehalem CPAC: See Attached CPAC Meeting Minutes; No Objection as long as WOEC takes sound abatement measures, easement road maintenance and visual barriers between residents and substation.

Vernonia RFPD: No Objection; See Appendix M of Application

ODOT Highways: Confirmation that existing access will remain the same on Highway 47; How will drainage be addressed for impervious surface?

County Building Official: No Objection

No further comments from agencies, citizens or otherwise have been received regarding this proposal as of the date of this staff report.

CONCLUSION, & RECOMMENDED DECISION & CONDITIONS:

Based on the facts, findings and comments herein, the Planning Director recommends **APPROVAL** of this Site Design Review (DR 11-03), subject to the following conditions:

1. This Design Review shall remain valid for two (2) years from the date of the final decision. This permit shall become void, unless the proposal has commenced in conformance with all conditions and restrictions established herein within the two-year validity period. Extensions of time may be granted by the Planning Director if requested in writing with the appropriate fee before the expiration date, given the applicant is not responsible for failure to develop.

Prior to the issuance of any Building Permit application, the following conditions shall be met (Findings 2 - 7):

2. The applicant shall submit a revised Site Plan identifying the following additional detail to the improvements:
 - a. Setbacks of the new substation fence from property lines shall conform to the setbacks approved by the Deputy Chief for the Vernonia Rural Fire District in the letter dated July

30, 2010. The revised site plan shall reflect these minimum setbacks - 78 feet to the north, 221 feet to the west, 340 feet to the south and 359 to the east.

- b. A Landscape Plan demonstrating that the developed portion of the site will be screened from the north, east and south property lines. Consideration shall be given to screening the site for noise and aesthetic purposes. Said landscape plan shall be reviewed and approved by Land Development Services.
 - c. A driveway Paving Plan for paving the existing driveway. The paved surface shall include the entire driveway width from Hwy 47 to the intersection of the neighbor's drive and continue at Fire Apparatus width on WOEC's drive to the proposed gate.
3. The applicant shall maintain fire apparatus access to all sides of the new electrical power substation. This access shall be demonstrated on the final site plan and approved by the Vernonia Rural Fire Protection District. Verification of the RFPD's approval shall be submitted to Land Development Services.
 4. The applicant shall submit verification to Land Development Services from the Vernonia Rural Fire Protection District that the driveway has been constructed to fire apparatus access standards.
 5. The applicant shall submit documentation to Land Development Services from the Division of State Lands verifying that the wetlands on site will not be impacted by the proposed project, and as such, not require a DSL permit. If wetlands are impacted, the applicant shall submit copies of approved DSL permits to LDS.
 6. The applicant shall submit verification of an approved road access permit from the Oregon Department of Transportation (ODOT).
 7. A Final Stormwater and Erosion Control Plan, stamped by a Professional Engineer, shall be approved by the County.

Prior to final inspection or Certificate of Occupancy issuance for this proposal, the following conditions shall be met (Findings 8-11):

8. All improvements per approved plans (e.g. final site plan, final landscape plan & stormwater plan) shall be installed.
9. The portion of the driveway required to be paved, shall be paved in accordance with the approved paving plan.
10. Lighting shall be installed so as to prevent glare onto adjacent properties, abutting rights-of-way and skyward for aircraft.

11. The applicant shall demonstrate that the substation is operating at decibel levels consistent with DEQ's guidelines as outlined in Oregon Administrative Rule, Division 35. Specifically, the applicant shall be required to submit evidence to Land Development Services that the statistical noise levels generated by the new substation do not exceed the standards set forth by OAR 340-035-0035, Table 8. As per OAR 340-035-0035(4)(a), procedures for such measurements shall conform to procedures set forth in the Sound Measurement Procedures Manual (NPCS-1).
12. Landscaping shall be kept free of refuse and maintained so that it does not: 1) preclude the maintenance or repair of a public utility, 2) restrict pedestrian and vehicular access, and 3) will not constitute any traffic hazards because of reduced visibility. Landscaping shall be maintained in a presentable manner consistent with all applicable standards of the County Code and as required by the conditions herein for the life of the proposal. Existing vegetation of the site shall be preserved to the greatest extent possible.
13. A Sign Permit and Building Permit (as applicable) shall be applied for and approved, in compliance with County and any other applicable agency's regulations before any new signs are installed.
14. The applicant shall water the driveway during construction to reduce the impacts of dust onto neighboring properties.
15. The applicant shall dispose of hazardous materials in accordance with applicable Department of Environmental Quality (DEQ) regulations.
16. Changes to approved plan(s) and/or elevations shall be reviewed and approved by the County prior to implementation. All work shall accurately reflect County approved plans.

ATTACHMENTS:

Application (appendices available upon request)
Stormwater and Erosion Control Narrative
Existing Site Plans
Proposed Site Plans
Fire Marshal Statement Dated 7/30/10
Upper Nehalem CPAC Meeting Minutes
Zoning Map
Address Map
Vicinity Map