



CITY OF
West Linn

22500 Salamo Road
West Linn, Oregon 97068
<http://westlinnoregon.gov>

PLANNING COMMISSION MEETING

Wednesday, October 17, 2012

6:30 p.m. - Prehearing meeting - Rosemont Room

7:00 p.m. - Regular Meeting - Council Chambers

1. Call to Order
2. Public Comment
3. Public hearing: CUP-12-02/DR-12-04 (water treatment plant) and CUP-12-04/DR-12-14 (water transmission line)
4. Items of interest from the Planning Commission
5. Items of interest pertaining to the Commission for Citizen Involvement
6. Items of interest from staff
7. Adjourn

Attachments (Planning Commission members only):

Memo regarding revisions to CUP-12-02/DR-12-04 (water treatment plant)
Staff report for CUP-12-04/DR-12-14 (water transmission line)

Tentative agenda for upcoming Planning Commission meetings:

October 18: continued hearing if needed

Meeting Notes:

The Council Chambers is equipped with an induction loop and a limited number of neck loops for the hearing impaired. Please let the City know if you require any special assistance under the Americans with Disabilities Act, please call City Hall 48 hours prior to the meeting date, 503-657-0331.



Memorandum

Date: October 5, 2012
To: West Linn Planning Commission
From: Zach Pelz, Associate Planner
Subject: CUP-12-02/DR-12-04; Amendment to April 18, 2012, Staff Report for the Planning Commission in response to the amended Water Treatment Plant application

Background

On May 16, 2012, the Lake Oswego-Tigard Water Partnership (Partnership) asked the West Linn Planning Commission to suspend the Water Treatment Plant (WTP) land use proceedings so the Partnership could respond to three issues of concern raised during the public hearing. The issues identified in the May 16th request are:

1. Conduct further discussions with the affected neighborhood association and individual neighbors in an effort to resolve their concerns regarding project impact mitigation (Lake Oswego-Tigard Water Partnership, August 20, 2012);
2. Initiate negotiations with the City of West Linn on an amended intergovernmental agreement (IGA) for emergency water supply that clarifies commitments by and benefits to the parties; and,
3. Expedite the submittal of the pipelines application to allow a consolidated hearing process in which the cumulative effects and benefits of both projects are considered.

Since May 16, 2012, the Partnership has participated in meetings with the Robinwood Neighborhood Association and the City of West Linn in an effort to resolve outstanding Neighborhood concerns and has worked with the City of West Linn to update the existing IGA for emergency water supply. The Lake Oswego and Tigard City Councils have approved an updated IGA (**Attachment E**) that guarantees 4 mgd of emergency supply at the West Linn-Lake Oswego intertie through 2041. The South Fork Water Board (also a party to this agreement) is currently considering the IGA. The West Linn City Council is expected to consider the revised IGA following the resolution of the land use case.

While the applicant has requested a suspension of the water treatment plant public hearing to allow their transmission line proposal time to catch-up and be heard concurrently, these proposals remain as discrete applications with separate decisions and conditions for approval (if approved), and must be based upon findings with respect to Community Development Code (CDC) criteria that are uniquely applicable to each proposal.

The contents of this document serve as a supplement to the April 18, 2012, staff report for CUP-12-02/DR-12-04 (WTP), and outline staff's determination of compliance with applicable CDC criteria in light of revisions to the applicant's site plan and narrative for CUP-12-02/DR-12-04. Staff's analysis

of CUP-12-04/DR-12-14 (water transmission lines) is contained in the staff report for that proposal and will not be further discussed here.

Summary of the original water treatment plant proposal, CUP-12-02/DR-12-04

The Lake Oswego-Tigard Water Partnership (Partnership) requests Conditional Use and Design Review approval to modify, upgrade and expand the existing Lake Oswego WTP at 4260 Kenthorpe Way to increase the treated water capacity for residents in Lake Oswego and Tigard and, if an updated IGA is approved, for the residents of West Linn in the event of an emergency. Prominent features of the proposed expansion include: a new administration building, a new underground water reservoir, and new settling and treatment facilities. According to the applicant, modernization of these facilities will increase safety and efficiency over the current WTP and will incorporate sustainable development techniques, such as green street designs, permeable surfaces and green roofs as well as clustering of the proposed facilities to enable extensive perimeter buffering.

The predominant impacts anticipated by staff are noise (see Analysis Section of April 18 staff report and proposed Condition of Approval 4), construction related impacts (see Analysis Section of April 18 staff report and proposed Condition of Approval 2), the loss of 6 of the 42 significant trees on site (see Analysis Section of April 18 staff report and Finding 16), and public safety.

Summary of amendments to the original Water Treatment Plant application

On August 20, 2012, the Partnership submitted revisions to their site plan and narrative for the proposed WTP expansion. According to the applicant, these revisions respond to concerns raised during the public hearings regarding CUP-12-02/DR-12-04 between April 18 and May 16, 2012, and include: reduction of water storage reservoir (clearwell) from 3 million gallons to 2 million gallons, reduction of the proposed building footprints by approximately 20 percent and increased separation between buildings, reconfigured drive aisles, relocation of the overflow parking area to increase setbacks from properties adjacent the site's western border, replacement of the three solids thickeners with one larger solids thickener, the addition of mature trees to provide greater screening between adjacent properties, the addition of a partially enclosed chemical delivery area to improve safety and reduce noise, the elimination of the carbon dioxide (CO₂) storage tank and compressor to reduce noise and relocation of the liquid oxygen (LOX) tank from the northeast corner of the site to the center of the site.

In addition to site revisions, the applicant also supplied: additional detail regarding project construction and traffic control strategies during construction (Attachment A, Section 14A and 14B), a peer review of the site seismic analysis (Attachment A, Section 17), and a safe operations plan (Attachment A, Section 18B).

According to the applicant, these revisions result in less truck traffic during construction, less noise during construction, reduced visual impacts and an overall site disturbance reduction of more than 12,000 square feet from the original land use application. The complete list of revisions to the narrative, figures and supporting documents are outlined in Table 1, below and are shown in Figure 1, below:

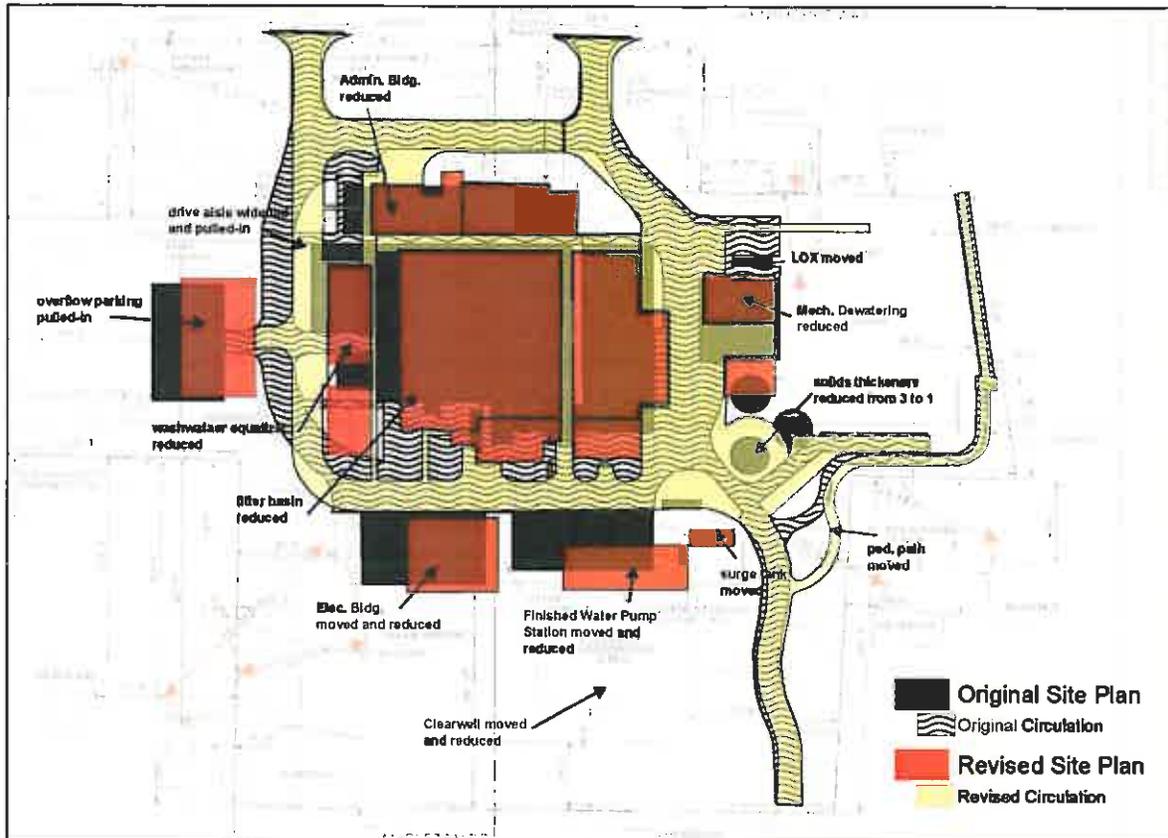
Table 1 Summary of amendments to CUP-12-02/DR-12-04

Topic	Change	Associated Finding(s)	Figure
Architecture	Changes in architectural design – some building heights increased but footprints have been reduced		Figure 3.0 and Figure Series 9

Topic	Change	Associated Finding(s)	Figure
			and 10 for specific buildings
	Building heights proposed: mechanical dewatering – 35 feet, finished water pump station – 27 feet, electrical buildings – 31.5 feet, and ballasted flocculation penthouse – 30.5 feet		Building heights shown in Series 10
	Administration building width reduced, increased setbacks from neighborhood, reduced footprint and associated pile foundation system	Revised Finding Nos. 49, 23, 24	Figure 3.0
Primary process facilities	Primary process facilities refined allowing for reduced building footprint and associated pile foundation systems, including:	Revised Finding Nos. 49, 23	Series 9 and 10
	<ul style="list-style-type: none"> 20 percent reduction in ballasted flocculation basin size 	Revised Finding Nos. 49, 23	Figure 9.1
	<ul style="list-style-type: none"> 20 percent plus, reduction in ozone contact basin size 	Revised Finding Nos. 49, 23	Figure 9.1
	<ul style="list-style-type: none"> 20 percent reduction in filter/filter gallery size 	Revised Finding Nos. 49, 23	Figure 9.1
	<ul style="list-style-type: none"> 30 percent reduction in clearwell volume/size resulting in fewer excavation, truck haul trips 		Figure 3.0
	<ul style="list-style-type: none"> 20 percent reduction in finished water pump station size 	Revised Finding Nos. 49, 23	Figure 9.5
Secondary process facilities	Secondary process facilities were refined, including:		
	<ul style="list-style-type: none"> Washwater handling facility geometries were optimized 	Revised Finding Nos. 49, 23	Figure 3.0
	Addition of washwater clarification, if ever needed, is deferred until the future	Revised Finding No. 49	Figure 3.0
	Three gravity thickeners reduced to a single gravity thickener, avoiding need for future construction; reduced footprint and associated pile foundation system	Revised Finding Nos. 49, 23, 43	Figure 9.4
	30 percent reduction in mechanical dewatering building size; reduced footprint and pile foundation system	Revised Finding Nos. 49, 23	Figure 9.4
Support facilities	Support facilities refined, including:		
	<ul style="list-style-type: none"> Revised electrical building footprint; location of switchgear out-of-doors to minimize building size; reduced footprint and pile foundation system Secondary power feed from PGE has 	Revised Finding Nos. 49, 23	Figures 3.0, 5.0, and 9.6 Figure 5.0

Topic	Change	Associated Finding(s)	Figure
	eliminated the need for a large diesel generator for emergency power; a smaller generator and optimized design will create less noise, minimize fuel storage and create less traffic for operations and maintenance		
	10 percent reduction in chemical building size; inclusion of a partially enclosed chemical unloading area for optimum safety; reduced footprint and pile foundation system	Revised Finding Nos. 49, 23	Figures 3.0 and 9.7
	Location of liquid oxygen (LOX) tank and vaporizers optimized	Revised Finding No. 23	Figure 3.0
Site/civil	Site/civil refined, including:		
	<ul style="list-style-type: none"> More space between facilities to minimize need for shoring, which will reduce truck trips and noise during construction 	Revised Finding No. 23	Figure 3.0
	Roadways refined further reducing building sizes and increasing setbacks to the West	Revised Finding Nos. 49, 77, 87, 88, 91, 92, 120, 121	Figure 3.0
	Small emergency generator relocated in a sound-attenuated enclosure, reducing noise impacts and providing additional resiliency of operations for emergency response reliability.		Figures 3.0 and 3.4
	Significant reduction in onsite fuel storage tank size		Figure 3.4
	Generator relocated in an enclosure, reducing electrical building footprint and pile foundation system		Figure 3.4
	LOX tank and compressor eliminated		Figure 3.0
	Stormwater ponds and infiltration basins moved per new site plan layout	Revised Finding No. 49	Figure 4.0
	Fire hydrant count reduced from 4 to 2 per fire code (still in excess of code requirement)		Figure 7.1
	Bicycle rack locations and number of stalls revised per discussions with City staff	Revised Finding No. 111	Figure 7.0
Added Figure 2.13 Tree Areas	Revised Finding Nos. 5, 10, 16, 49, 129	Figure 2.13	

Figure 1 Site plan revisions



Central Issues. Modifications to the applicant's proposal result in the following changes to the central issues (shown in red underline) identified in the April 18, 2012, staff report:

1. Transportation. Heavy truck trips during construction reduced by approximately 1/3 due to reduced clearwell excavation (p. 12 of April 18 staff report).
2. Construction Hours.
3. Noise Impacts. CO₂ storage tank and associated compressor will be eliminated (p. 14 of April 18 staff report).
4. Visual Impacts. Addition of mature trees to further reduce view of site lighting from adjacent properties (p. 15 of April 18 staff report).
5. Significant Trees. Designation of one additional significant tree (42 significant trees compared to 41 in original staff report; p. 17 of April 18 staff report). Planting of additional mature trees to screen view of WTP lights from adjacent properties.
6. Safety.
7. Construction Management. Project completion date now 2016 (original project completion date 2015; p.19 of April 18 staff report).
8. Overall Needs of the Community.

Revised Recommendation. Staff has reviewed the applicant's proposal, including the revisions herein, relative to all applicable CDC requirements and finds that there are sufficient grounds for approval, subject to the conditions below. Please see the Addendum, Approval Criteria and Findings to the April 18, 2012, staff report as well as the revised staff findings below, for more detail.

Two sets of revisions to staff's originally-recommended conditions of approval are listed below. One set (highlighted and red strikethrough and underline) includes changes to the original conditions of approval resulting from the discovery of scrivener's errors by staff and site plan revisions that took place during the Planning Commission hearings between April 19 and May 16, 2012. The second set (red strikethrough and underline) of recommended conditions of approval are proposed to respond to revisions to the proposal submitted after May 16, 2012.

The revision to proposed Condition of Approval 3 is due to the Building Official assuming the responsibility of evaluating Hazardous Waste Management Plans (in consultation with a qualified consultant) since **Tualatin Valley Fire & Rescue** no longer performs that function. Staff recommends eliminating condition of approval number 6, proposed in the April 18 staff report, as the applicant's revised plans now show an emergency access gate that is consistent with the City's clear vision requirements. Staff also recommends eliminating condition of approval number 7 as the applicant's revised plans indicate the location and capacity of all required bicycle parking.

1. **Approved plans.** The project shall conform to the Site Plan, Attachment A, Section 21, Figure series 3~~Exhibit PC-3, Section 23, Figure 3.0~~; the Grading Plan, Attachment A, Section 21, Figure series 4~~Exhibit PC-3, Section 21, Figure 4.0~~; the Utility and Lighting Plan, Attachment A, Section 21, Figure series 5~~Exhibit PC-3, Section 21, Figure 5.0~~; the Lighting Plan, Exhibit PC-3, Section 23, Figure 5.5; the building elevations depicted in Attachment A, Section 21, Figure series 10~~on figures 10.0-10.8, Exhibit PC-3, Section 21 and Exhibit PC-3, Section 23, Figure 10.2~~; the Planting and Irrigation Plan, Attachment A, Section 21, Figure 11 and Figure series 12 and 13~~Exhibit PC-3, Section 23, Figure 12.1-12.4~~; the sidewalk and stormwater collection alternative plan, Attachment A, Section 21, Figure 3.0A~~Exhibit PC-3, Section 23, Figure 3.0A~~; the street and sidewalk improvement plans, Attachment A, Section 21, Figures 3.0B and 3.0C~~Exhibit PC-3, Section 23, Figures 3.0B and C~~ and the Hardscape and Material Plan, Attachment A, Section 21, Figure series 14~~Exhibit PC-3, Section 23, Figures 14.0 and 14.1~~, except as modified by these conditions of approval.
2. **Construction Management and Good Neighbor plans.** The applicant shall implement applicable provisions of the Construction Management Plan, Attachment A, Section 14~~Exhibit PC-3, Section 23~~ and Good Neighbor Plan, Attachment A, Section 8, Appendix C~~Exhibit PC-3, Section 8~~.
3. **Hazardous Materials Management Plan.** Prior to issuance of building permits and approval of final construction drawings, submit to the Planning Department an updated Hazardous Materials Management Plan for the approved WTP that ~~has been reviewed by~~ satisfies all applicable regulations, including compliance with applicable state regulations governing the handling of hazardous materials.
4. **Noise.**
 - a. The ENVIRON Noise Mitigation recommendations contained in Attachment A, Section 11~~Exhibit PC-3, Section 11~~ shall be implemented.
 - b. Chemical unloading shall only be allowed between 7:00 AM and 7:00 PM on weekdays and 9 AM to 5 PM on weekends.
 - c. The applicant shall submit a follow-up noise study to the Planning Director that is prepared by a licensed professional acoustical engineer, between three and six

months after the issuance of the first certificate of occupancy, identifying whether the facility meets the noise standards in OAR 340-035. If the noise standards are not met, the applicant shall submit evidence of remedial action within 60 days that achieves compliance.

- d. Noise generating construction activities outside the hours of 7 PM ~~AM~~ to 7 AM ~~PM~~ on weekdays or 9 AM to 5 PM on weekends may only be permitted with written approval from the City Manager. Any request to the City Manager to extend work hours shall include justification for the proposed construction outside allowed work hours, beginning and end dates, a description of the equipment and activities proposed during that time, and documentation that this information was presented at least 7 days earlier to the Robinwood Neighborhood Association president.
 - e. Reverse signal alarms shall be not permitted for construction activities outside of the hours of 7 PM ~~AM~~ to 7 AM ~~PM~~ on weekdays or 9 AM to 5 PM on weekends; spotters or other alternative methods approved by OSHA ~~working~~ will be required.
5. Pedestrian path. The applicant shall install a No Parking sign at the beginning of the through-site pedestrian path at both Mapleton Drive and Kenthorpe Way. (The applicant may choose any Manual on Uniform Traffic Control Devices (MUTCD) approved marking they deem appropriate for this application.)
 - ~~6. Emergency access gate. The emergency access gate on Mapleton Drive shall be located 30 feet from the Mapleton Drive right-of-way line to preserve clear vision for pedestrians and bicyclists exiting the site onto Mapleton Drive.~~
 - ~~7. Bicycle parking. Bicycle parking facilities in the visitor and employee parking areas shall provide capacity for 12 bicycles. At least three of the bicycle parking spaces shall be covered.~~
 8. Stormwater.
 - a. Prior to the issuance of a public works permit, the applicant shall submit to the City Engineer the final stormwater operations and maintenance plan pursuant to CDC Subsection 33.030(C).
 - b. Vegetated swales along Kenthorpe Way and Mapleton Drive shall be located between the street and sidewalk except in those areas where an alternate configuration is necessary to protect mature trees, as determined by the City Arborist in consultation with the City Engineer.
 - c. At time of building permit submittal, the applicant shall execute a stormwater maintenance agreement with the Public Works Department and record a public storm drainage access easement for all stormwater treatment and detention facilities located on private property.
 9. Fire flow. At the time of building permit submittal, the applicant shall provide detailed fire flow calculations for each building on site that satisfy TVF&R requirements.
 10. Sewage system.
 - a. The WTP shall not generate flows in excess of 60 GPM to the City's sanitary system, unless an analysis prepared by the applicant and approved by the City Engineer demonstrates that the City has sufficient capacity to serve the increased flow.
 - b. Prior to final occupancy, the applicant shall install a wastewater flow meter to allow the City to track WTP discharges into the City's sanitary sewer system. The wastewater flow meter shall be installed at a location as near as possible to the

point of connection with the public sewer system and where the City staff can access it. The wastewater flow meter shall be owned and maintained by the facility owner.

11. Garbage and recycling facilities.
 - a. At time of building permit submittal, the applicant shall submit construction plans which demonstrate compliance with refuse and recycling standards of CDC subsections 55.100(O)(3) and (4). The applicant shall provide construction details which demonstrate that the trash containers will be located on a level Portland cement concrete pad, at least four inches thick, at ground elevation or other location compatible with the local franchise collection firm's equipment. The pad shall be designed to discharge surface water runoff to avoid ponding.
 - b. Prior to building permit issuance, the applicant shall submit construction details as necessary to determine whether the design of garbage and recycling facilities are consistent with Metro standards.
12. Overhead utilities. Prior to building permit issuance, the applicant shall pay a fee-in-lieu of undergrounding overhead utilities along Kenthorpe Way and Mapleton Drive equal to the estimated cost of performing such work as accepted by the City Engineer.
13. Fencing. Fencing shall not exceed three feet in height within front yard setbacks 20-feet of the site's northern property line on Kenthorpe Way and within 20-feet of the site's southern property line on Mapleton Drive.
14. Parking. Prior to the issuance of any site development permits, a specific parking plan for construction workers shall be provided to the Planning Director that identifies the location of the off-site parking location for workers, consistent with applicable City regulations. On-street vehicle parking is prohibited during construction.
15. Geotechnical Engineering Report. All methods and recommendations found in the Geotechnical Engineering Report, Attachment A, Section 17 Exhibit PC-3, Section 17, shall be implemented unless superseded by any follow-up report prepared by a civil engineer and approved by the City Engineer, consistent with applicable regulations.
16. Street Improvements.
 - a. The applicant shall construct street improvements in accordance with the street improvements called for in Attachment A, Section 21, Figure series 3 Exhibit PC-3, Section 23, figures 3.0-3.4.
 - b. A public sidewalk easement shall be recorded over all pedestrian areas specified for public use.
17. Tree Protection Easement. Prior to issuance of any site development permits, the applicant must establish a conservation easement for all tree protection areas, as shown on the applicant's site plan in Attachment A, Section 21, Figure series 3 Exhibit PC-3, Section 23, Figure 3.0, containing clusters of two or more significant trees. The easement shall be approved by the Planning Director and recorded with Clackamas County.

Revised staff findings. The findings below revise certain findings contained in the April 18, 2012, staff report to reflect changes in the applicant's proposal. Only those findings requiring modification, due to the applicant's revised submittal, are included herein. The revised findings are intended to replace the same numbered finding in the April 18 staff report and are shown in their entirety and are denoted by red underline (additions) and strikethrough (deletions). The complete

staff findings may be found in the April 18, 2012, staff report, except where modified by the revised findings below.

60.070(A)(2) – *the characteristics of the site are suitable for the proposed use considering size, shape, location, topography, and natural features.*

Revised Finding No. 5:

Size. As described in Finding No. 1, staff finds that the size of the site is suitable for the proposed use.

Shape. The 6-parcel site is cross-shaped, which permits more immediate adjacency of off-site structures than would be permitted by a square-shaped lot. In working with the Robinwood Neighborhood Association, the applicant has proposed a consolidation of prominent structures toward the center of the site. As stated above, although the R-10 base zone setbacks are not applicable to this conditional use proposal, the applicant's site plan meets or exceeds the setback requirements for uses permitted outright in this zone. These include the FAR, lot size, setbacks, etc. Staff finds that the shape of the property is appropriate for the proposed use.

Location. The WTP has existed at this location since 1967. The WTP received approval from the City of West Linn to expand and/or upgrade in 1980, 1988, and 1996 to increase processing capacity or to modify the water treatment process. A majority of homes in the Kenthorpe Tracts Plat were built in 1973, with the average age of homes dating to 1972. A majority of homes in the Maple Grove Plat were constructed in 1955, with the average age of all homes dating to 1943. Staff is not aware of any significant negative impacts that the existing facility has had on the neighborhood.

Another important consideration about the site location is to note that the City of West Linn's emergency inter-tie with Lake Oswego is located, and must continue to be located, on the finished water side of the WTP.

Staff finds that the location of the site remains suitable for the proposed use.

Topography. The WTP site is relatively flat with less than 2 percent slopes throughout. The WTP sits on a mid-elevation bench (approximately 130-feet above sea level) between the Willamette River and Highway 43. Staff finds that the topography of the site continues to be suitable for the proposed use.

Figure 2: Aerial image of Applicant's site



Source: West Linn GIS 2012

Natural features. The site does not contain areas identified as habitat conservation areas; significant Goal 5 riparian areas; Goal 5 wetlands; significant streams or stream corridors; heritage trees; or, Type I or II Lands. There is a small, unregulated drainage swale in the northwestern corner of the property. The site does contain 4142 trees that have been deemed significant by the City Arborist. The applicant is proposing to remove 6 significant trees in order to develop the property. Staff finds the use is appropriate for the site given the lack of natural resources and the tree preservation efforts outlined later in this report.

60.070(A)(3) - *The granting of the proposal will provide for a facility that is consistent with the overall needs of the community.*

Revised Finding No. 6: Staff finds that the proposal will further numerous needs of the community; the principal **potential** benefit to West Linn residents **will be is the proposed** implementation of the City's approved Water Master Plan which calls for improving the emergency supply capacity and reliability. The Master Plan states that:

"The City's existing emergency supply connection to Lake Oswego is interruptible and its delivery capacity is dependent on Lake Oswego's supply and demand conditions at the time of the City's need. Under peak use and high demand conditions, the actual capacity of this connection may approach zero as Lake Oswego's current maximum water demands are approaching the existing supply system's capacity. The City of Lake Oswego is currently in discussions with the City of Tigard concerning long-term-water supplies. With the Tigard/Lake Oswego emergency supply connection operational, Lake Oswego could supply an equal amount of water to the City through

the West Linn/Lake Oswego supply connection. A preliminary review indicates that this connection may have a hydraulic capacity in excess of 6 mgd, potentially making an equal amount available to the City in an emergency event. Pursuing this option involves negotiating intergovernmental agreements (IGA) and probable participation in funding a portion of the transmission system intertie improvement. A preliminary review of potential project costs associated with this approach indicates that it has a lower cost Based on input from and discussions with City staff and policy makers it is recommended that Solution Approach C be pursued....It was further directed to pursue development of reliable emergency supply capacity with the cities of Lake Oswego, Tigard and others in accordance with Solution Approach C.” (bold added)

As described in this report, the proposed upgrades to the WTP are consistent with the recommendations of the City's approved Water Master Plan. Staff concurs with the applicant's response to this criterion, which may be found in Exhibit PC-3, Section 4, page 30, and the West Linn Water System Master Plan, which is paraphrased here:

In 1984, West Linn entered into an intergovernmental agreement with the City of Lake Oswego and the South Fork Water Board (SFWB) to construct, operate and maintain an intertie between the Lake Oswego water supply system and the West Linn and SFWB system. An 18-inch diameter intertie between the Lake Oswego system and the 24-inch diameter transmission line in the City was constructed. In 2001, the intertie was improved with the construction of an intertie pump station with a capacity of approximately 6 mgd. The pump station can be used to pump emergency supply from the Lake Oswego distribution system into the Bolton and Robinwood pressure zones. The pump station provided water to the City from November 2001 to April 2002 during the upgrade of the City's I-205 transmission main from the SFWB and has subsequently provided supply for short durations (City of West Linn Water System Master Plan, November 2008; p. 2-4).

Expanding the WTP capacity from 16 mgd to 38 mgd, as proposed, will potentially increase the availability of backup or emergency water supply (pending execution of an IGA approved by the City of Lake Oswego, City of Tigard and the City of West Linn) and potentially provide ing greater certainty that West Linn will have a reliable source of backup or emergency water for several years when a need arises.

Staff also finds that the project will meet the needs of the community by furthering dozens of Comprehensive Plan policies; see finding 10. Specific site improvements that directly benefit the City include: right-of-way improvements along both Kenthorpe Way and Mapleton Drive, environmentally sustainable storm water features such as pervious materials and green roofs, community open spaces that will include, lighting and benches, construction of an important public trail connection joining Kenthorpe and Mapleton. Creation of this path will eliminate the need for the City of West Linn to construct this intra-neighborhood connection, which will provide a benefit to children walking to and from Cedaroak Park Primary School. While these improvements are not required of the applicant under the CDC, the applicant has offered them for the benefit of the community.

In staffs' opinion, a reliable source of drinking water for residents in Lake Oswego and Tigard provided by the proposed plant expansion will likely produce numerous additional benefits for the regional and local community. The upgrades to the facility will permit more environmentally friendly and sustainable operations. Additional water capacity in Lake Oswego and Tigard will allow these cities to accommodate new population anticipated in the region and will reduce pressure on non-urbanized areas. Reducing development pressure on non-urbanized areas

reduces the expense of new public infrastructure and maintenance, preserves natural resources and wildlife habitat and conserves agricultural farmland. Lower infrastructure and maintenance costs mean fewer new taxes and fees; preservation of resources and wildlife habitat ensure opportunities for recreation; and, conservation of farmland promotes employment in the local economy and reduces the cost of local agricultural goods.

Some have argued that further use of Clackamas River water during periods of low summer flows will be potentially damaging to dependent fish. But this issue is beyond the scope of this report.

60.070(A)(7) – *The use will comply with the applicable policies of the Comprehensive Plan.*

Revised Finding No. 10: The CDC is consistent with and implements the policies of the Comprehensive Plan. Staff finds that, with the conditions proposed, the application will meet all of the provisions of the CDC; as such it will be furthering more goals, policies and action measures than can be mentioned in this report. Outlined below are additional policies that the proposal will comply with that might not be immediately apparent. Additionally, the applicant's proposal satisfies several supplemental documents to the Comprehensive Plan, including the Transportation Systems Plan, Water Master Plan and the Robinwood Neighborhood Plan; which are also outlined below.

Goal 1 Citizen Involvement

- *Policy 2 – Support neighborhood associations as a forum for discussion and advice on issues affecting the community.*
- *Policy 3 – Encourage individuals to organize and work in groups to develop recommended programs or positions on various issues.*
- *Policy 4 – Provide timely and adequate notice of proposed land use matters to the public to ensure that all citizens have an opportunity to be heard on issues and actions that affect them.*
- *Policy 5 – Communicate with citizens through a variety of print and broadcast media early in and throughout the decision-making process.*

Each of the above policies was furthered during the processing of this application. All Code requirements were met with regard to meetings and notice. Additionally, the applicant completed an extensive citizen information and outreach program over a twenty month period (detailed in their 'Good Neighbor Plan' ([Attachment A Exhibit PC-3](#), Section 8); including the following neighborhood meetings:

- Presentations and discussion at regular monthly meetings of the RNA:
 - Monthly between April 2010 – January 2012
 - April 16, 2011 Lake Oswego and Tigard Mayors meeting with Robinwood neighbors
- Open houses and tours at the treatment plant:
 - June 24, 2010 Water Treatment Process Recommendation Open House
 - July 24, 2010 Water Treatment Plant Open House
- Three planning workshops:
 - August 24, 2010 Maple Grove Plat property owners
 - October 27, 2010 First Good Neighbor Plan meeting
 - December 1, 2010 Second Good Neighbor Plan meeting
- Two surveys of neighbors and property owners:
 - August 4 – October 8, 2010
 - December 1, 2010 – January 12, 2011

- RNA tour of Wilsonville’s water treatment plant:
 - December 11, 2010
- Consultations with the City of West Linn:
 - April 5, 2010 West Linn City Council presentation
 - May 4, 2010 West Linn, Gladstone, Tigard, Lake Oswego City Managers’ meeting presentation
 - September 15, 2010 West Linn Utility Advisory Board
 - August 25, 2011 West Linn Parks and Recreation Advisory Committee
 - December 12, 2011 West Linn Utility Advisory Board
- Design team “backyard visits” with 14 treatment plant neighbors:
 - July 13, 2011 – August 21, 2011
- Design open house:
 - October 27, 2011
- Neighborhood meeting required by West Linn development code:
 - November 10, 2011

Furthermore, at the request of the Robinwood Neighborhood Association, the West Linn City Council took the unprecedented step of hiring a private land use planner to work exclusively with the Robinwood Neighborhood Association on this project. The Council’s intent was to provide the Neighborhood with professional assistance to enhance the effectiveness of citizen involvement for this project. This planner met with Neighborhood representatives, reviewed the City code and the application, and helped the association identify potential mitigation measures, and provided the Neighborhood with a report on the application. Additionally, the Partnership provided financial support to retain the services of a professional facilitator in an effort to engage community members and the applicant in discussions regarding the proposed project and mitigation measures addressing the construction and operation of the WTP project.

Goal 2 Land Use Planning

- *Section 1, Residential Development. Policy 8 – Protect residentially zoned areas from the negative impacts of commercial, civic, and mixed-use development, and other potentially incompatible land uses.*

As described throughout this report, the application provides extensive buffering, compact site design, increased structural setbacks, reduction in FARs, and a construction management plan to mitigate any potential negative impacts from this use. The uncertainties with noise impacts are proposed to be addressed by proposed Condition of Approval 4.

- *Section 5, Intergovernmental Coordination*

Specifies that the City shall coordinate with the outside jurisdictions on specific issues, including:

- *Water supply with the South Fork Water Board and the City of Lake Oswego.*

And includes the following goals:

- 1. Provide a coordinated approach to problems that transcend local government boundaries.*
- 2. Encourage and support other agencies to help implement the City's Comprehensive Plan.*

- *Policy 1 – Maintain effective coordination with other local governments, special districts, state and federal agencies, Metro, the West Linn-Wilsonville School District, and other governmental and quasi-public organizations.*
- *Policy 2 – Coordinate the City's plans and programs with affected governmental units in the developing solutions to environmental quality problems, hazardous physical conditions, natural resource management programs, public facilities and services programs, transportation planning, annexation proceedings, and other municipal concerns with intergovernmental implications.*

The Comprehensive Plan policies under this Goal specify coordination with other agencies to develop solutions to our public facility problems that “transcend local government boundaries.” It states that the Lake Oswego water supply is one of those facilities. The Water Master Plan and this particular application are examples of such coordination required under the Comprehensive Plan.

Goal 5 Open Spaces, Scenic and Historic Areas, and Natural Resources

- *Natural Environment*
 - *Policy 1 – Implement site design standards that prescribe how to place roadways and buildings to preserve trees.*
 - *Policy 2 – Where appropriate, require the planting of trees as a condition of approval for any land development proposal, consistent with the City's street tree ordinance and recommendations of the City Arborist.*
 - *Policy 3 – Provide buffer areas around heritage trees, significant trees, and tree clusters to ensure their preservation.*
 - *Policy 8 – Require and enforce erosion control standards for new development.*
 - *Policy 9 – Maintain and improve existing storm water detention and treatment standards to ensure that the impact of new development does not degrade water quality and wildlife habitat.*

CDC Subsection 55.100(B)(2) provides guidance and regulations governing the placement of roadways and buildings in relation to trees. West Linn regulates heritage trees, significant trees, and significant tree clusters. CDC 55.100(B)(2) acknowledges that not all trees are significant and that even if the City Arborists determines that a tree is significant, not all significant trees will be protected. The West Linn Arborist has determined that the site contains 41 significant trees or significant tree clusters.

The applicant proposes to save ~~3536~~ of the ~~4142~~ significant trees on site and will mitigate for the tree loss, consistent with West Linn regulations. See [Attachment A, Section 12](#)~~Exhibit PC-3, Section 22~~, Tree Protection Plan. Six significant trees, totaling 182 inches DBH are proposed to be removed. Based on the 182 inches of significant tree DBH removal, mitigation will require 182 inches of DBH replacement. The applicant proposes conducting this replacement by planting 91 sapling trees at 2 inch caliper per tree for a total of 182 inches. In addition, approximately 217 other trees will be planted. This will result in a total of approximately 308 trees being planted on-site. [The Partnership proposes to plant approximately 18 mature coniferous trees, 12- to 14-foot tall, to provide additional screening of the WTP lights \(see Attachment A, Section 21, Figures 5.5B, 5.5C, and 5.5E\).](#) Detailed planting plans, including a plant schedule are located in [Attachment A, Section 21, Figure 11 and Figure series 12](#)~~Exhibit, Section 21, Figures 11.0-12.0 and Exhibit PC-3, Section 23, Figures 12.1-12.4.~~

There are no heritage trees on site. Adequate buffers are proposed around the significant trees and tree clusters to be preserved to ensure their protection.

Goal 6 Air, Water, and Land Resources Quality

- *Section 2 Water Quality*
 - *Policy 1 – Require that new development be designed and constructed to prevent degradation of surface and groundwater quality by runoff.*
 - *Policy 4 – Require that new development be connected to the City's sanitary sewer system.*
 - *Policy 5 – Where feasible, use open, naturally vegetated drainageways to reduce stormwater runoff and improve water quality.*
 - *Policy 7 – Require up to date erosion control plans for all construction and actively enforce applicable City codes and regulations.*
 - *Policy 8 – Encourage the use of alternative permeable materials for construction of parking areas to reduce stormwater runoff and improve water quality.*

The existing storm water system is proposed to be upgraded and will include three methods to reduce the total area of impervious surfaces and capture, slow down and absorb runoff into the site design to reduce impacts associated with runoff and imitate a pre-development condition: green roofs, pervious paving, and vegetated stormwater facilities. The proposed 'green street' filtration system should improve water quality. The application includes a preliminary Erosion Control and Sediment Prevention Plan (ECSP) and includes permeable paving materials for employee and guest parking areas and a portion of the emergency access road from Mapleton Drive.

- *Section 3 Land Resources*
 - *Policy 3 – Require adequate screened and enclosed space for recycling, solid waste storage, and compacting and require proper access to these areas.*

All recycling, solid waste and compacting will be screened and have proper access (see proposed Condition of Approval 11).

- *Section 4 Noise Control*
 - *Policy 2 – Require development proposals that are expected to generate noise to incorporate landscaping and other techniques to reduce noise impacts to levels compatible with surrounding land uses.*
 - *Policy 3 – Require new commercial, industrial, and public facilities to be designed and landscaped to meet DEQ and City noise standards.*
 - *Policy 4 – As part of the land use application submittal for a noise-generating use, require the applicant to include a statement from a licensed acoustical engineer, and, if necessary, from DEQ, declaring that all applicable standards can be met.*

The City's noise standards are based on Department of Environmental Quality (DEQ) regulations. The applicant proposes to design and landscape the site to be consistent with DEQ daytime and nighttime noise limits in a residential neighborhood. The application contains a noise study prepared by ENVIRON, a licensed acoustical engineering firm. The acoustical engineer concluded that the proposed WTP can meet DEQ daytime standards. However, ENVIRON was not able to reach a definitive conclusion regarding nighttime compliance at the WRWTP based on the available measurement data, due to non-plant related noise generated by the architectural water feature along the west side of the WRWTP and a gravel producing operation to the east. Consequently, ENVIRON recommends consideration of one or more of the following noise mitigation techniques and practices during final WTP design:

- Installation of noise source equipment indoors, when feasible;

- Use of appropriate noise attenuation features on buildings, including acoustical louvers on air intakes/outlets and silencers on exhaust stacks;
- Use of appropriate noise attenuation features such as acoustical enclosures or barriers, pipe lagging around noisy pipes or ducts for equipment installed outside; and
- Selection of quieted equipment, particularly for HVAC systems.

With careful design and implementation of noise mitigation measures, noise levels from typical, ongoing plant operations are expected to comply with the nighttime noise limits. In addition to typical continuous operations, ENVIRON considered potential future sound levels associated with the intermittent on-site operations described previously. The sludge pond operations, lime silo vibratory system, and lime building blower are not expected to be required with the proposed WTP. Similarly, a smaller backup generator that will be installed indoors will replace the existing emergency backup generator. The existing high service pump station and roof mounted fans and the CO2 storage tank and associated compressor will be replaced and relocated, respectively, with appropriate noise attenuation features incorporated into these plant modifications.

Therefore, ENVIRON concluded that the only remaining intermittent operation of concern that will persist for the proposed WTP is truck mounted equipment associated with periodic chemical delivery unloading and weekly garbage pickup.

To meet the daytime noise limits at all property boundaries and thereby remedy this remaining concern, ENVIRON recommended the use of “plant air” (i.e., compressors installed inside a plant building) in lieu of truck-mounted compressors to eliminate the excessive noise associated with chemical unloading. Additionally, chemical unloading should be restricted to daytime hours only (this is addressed by proposed Condition of Approval 4).

ENVIRON recommends that the design considerations for intermittent noisy activities should include the following:

- Installation of backup generator indoors
- Use of “plant” air for chemical unloading operations.

Most of the existing exterior noise-producing intermittent activities will be eliminated or are expected to be far enough from neighboring properties to comply with both the daytime and nighttime noise limits. Based on this analysis, ENVIRON concluded that the upgraded WTP should comply with all daytime noise limits established by OAR 340-035.

Staff recommends Condition of Approval 4, based on the recommendations of the acoustical engineer; these include the ENVIRON Noise Mitigation recommendations and a post-construction noise analysis to document that noise limits have been met.

Goal 7 Areas Subject to Natural Disasters and Hazards

- *Policy 1 – Require development and associated alterations to the surrounding land to be directed away from hazardous areas.*
- *Policy 2 – Restrict development except where design and construction techniques can mitigate adverse effects.*

The WTP has occupied this location for 40 years. Staff requested a site specific site hazard evaluation which provides the recommended construction and installation techniques to mitigate seismic issues at the site. The Public Safety section of the [staff analysis](#) (p. 16 of [the April 18 staff this-report](#)) includes a summary of the seismic issues and mitigation measures. The applicant’s complete draft geotechnical report and site hazard evaluation is contained in [Attachment A Exhibit](#)

PC-3, Section 17. This document is included with the application and will guide the future development of the site.

Goal 8 Parks and Recreation

- *Policy 8 – Require land divisions and major developments to set aside or dedicate land based on standards that provide for:
 - a. An area composed of developable lands that may provide active recreational space;
 - b. An adequate passive open space area to protect natural resources at the site and protect development from hazard areas; and,
 - c. A link between existing public-owned parks or open space areas and/or public rights-of-way.*

Although not required as part of the application, the applicant proposes the creation of a pedestrian path from the eastern end of Kenthorpe Way to Mapleton Drive, thereby fulfilling the intent of this series of goals and recommendations. Additionally, large open spaces along both frontages are being provided, with pedestrian lighting and benches accessible to the public.

Goal 9 Economic Development

- *Policy 8 – Maximize the use of regional, state, and federal funding for infrastructure planning and development.*

The variety of public improvements being received by the City in conjunction with this project represent an example of the City partnering with another agency for infrastructure improvements at no cost to the City. Improvements include the right-of-way improvements, pedestrian paths, benches, and lighting benefiting the public, and additional water capacity in the facility itself.

Goal 11 Public Facilities and Services

- *Policy 2 – Development shall not be approved unless: a) the proposal has adequate access to the transportation, storm drainage, potable water, and sewer systems; and, b) these infrastructures have adequate capacity to serve the development.*
- *Policy 5 – Where appropriate, monitor, coordinate with, and regulate the activities of the following, as they affect existing and future residents and businesses: a) water supply... e) fire and rescue protection...*
- *Policy 10 – Assure all visible public facilities are constructed with attractive design and materials where appropriate.*
- *Policy 11 – Assure that costs for new infrastructure and the maintenance of existing infrastructure are borne by the respective users except when it is determined that improvements are of benefit to the whole community, or that a different financing mechanism is more appropriate.*
- *Policy 12 – Whenever feasible, utilize environmentally sensitive materials and construction techniques in public facilities and improvements.*

The WTP is an existing element of West Linn's infrastructure as it provides West Linn residents with a water intertie for emergency purposes. The applicant proposes to continue to provide the water intertie to West Linn consistent with the water system plans for each jurisdiction.

[Attachment E \(proposed new intertie IGA\) demonstrates that the Partnership is willing to guarantee the availability of 4 mgd of emergency supply through the year 2041.](#) As outlined in Finding 6, the Water Master Plan states the need to improve the emergency supply capacity and reliability of the Lake Oswego emergency supply connection and recommends: *"This solution approach includes developing a coordinated emergency supply plan that allows the City to fully meet*

its emergency supply capacity needs through the existing emergency supply connection from the City of Lake Oswego's water system in the Robinwood neighborhood near Lake Oswego's water treatment plant. The City's existing emergency supply connection to Lake Oswego is interruptible and its delivery capacity is dependent on Lake Oswego's supply and demand conditions at the time of the City's need. Under peak use, high demand conditions the actual capacity of this connection may approach zero as Lake Oswego's current maximum water demands are approaching the existing supply system's capacity."

The West Linn water supply was interrupted in December 2011, a low flow time of the year, demonstrating the importance of securing a reliable source of emergency water. Expansion of the WTP would potentially provide (pending execution of a revised IGA) West Linn with a reliable source of emergency water until at least 2041~~for many years to come.~~

The design team conducted a neighborhood compatibility analysis, which identified several dominant architectural themes, such as, low buildings relying on horizontality and the use of wood, brick, and earth tones. The proposed WTP buildings complement these themes by emphasizing horizontal planes, building elevation within the height limits of the R-10 zone, and the use of wood, brick and metal – all in earth tones.

The proposed project includes the following environmentally sensitive improvements: use of porous paving surfaces, recycled materials, green roofs, stormwater facilities that make use of existing topography and a "Green Streets" approach to frontage improvements. Where possible, heat will be scalped from a warm area of the plant and ducted to a cooler area of the plant.

The applicant will be paying for the costs of the improvements in the right-of-way as well as all required system development charges (SDCs). Additionally, the City will directly benefit from the expanded capacity at the plant.

- *Section 2 – Water System*
 - *Policy 1 – Establish the City's Water Master Plan, 1999, which is a supporting document of the Comprehensive Plan, as a guide for development of future water storage and distribution facilities. A list of the planned water system projects shall be included in the public facilities plan summary required under Public Facilities and Services General Action Item 1.*

Although Policy 1 above describes the 1999 Water Master Plan, the most recently updated version is the 2008 Plan. That Master Plan encourages the integration of the Lake Oswego intertie into the West Linn water system; it states, "It was further directed to pursue development of reliable emergency supply capacity with the cities of Lake Oswego, Tigard and others in accordance with Solution Approach C." (2008 Water Master Plan, Page 6-15) Clearly, the proposed plans will provide the opportunity to directly further this directive from the Water Master Plan.

- *Section 3 – Storm Drainage*
 - *Policy 1 – Where possible, require storm water runoff within development areas to be pretreated, using natural channels as points of discharge from local runoff collection systems. The Storm Drainage Master Plan, West Linn, Oregon, 1996, will be the key reference for determining drainage corridors and is a supporting document of the Comprehensive Plan.*
 - *Policy 3 – Protect downstream areas from increased storm water runoff by managing runoff from upstream development and impacts on adjacent natural drainageways and their associated vegetation.*

- *Policy 4 – Seek alternatives to the use of impervious surfaces within areas of dense standing trees and shrubs next to natural drainage courses and in other natural areas.*
- *Policy 6 – Require that construction practices for all land development projects, private and public, be conducted in such a way as to avoid exposing cuts, grading areas, and trenches to stormwater so that soil erosion is minimized, and soil will not be washed into natural drainage areas*
- *Policy 8 – Encourage use of permeable surfaces in developments.*
- *Section 4 – Fire and Police*
 - *Policy 1 – Ensure that police and fire protection service providers are closely involved with land use decisions that have implications for the provision of emergency services and crime prevention.*

As previously noted, the site plan includes multiple examples of techniques that will further these provisions of the Plan. These include green streets, green roofs, pervious surface areas, and clustering of the development to reduce impervious surface areas. The applicant has met with TVF&R, which has approved of the plans with a proposed Conditions of Approval 3 and 10.

Goal 12 Transportation

- *Policy 8 – Ensure that development brings adjacent road frontages to illumination levels that are identified within the CDC and City Engineering standards and specifications for street lighting.*

The applicant discussed providing additional lighting on the streets fronting Kenthorpe Way but, after consulting with staff, and with consideration of neighborhood desires, it was decided to only have street lights provided at the entrance drives. Lighting will be provided for pedestrians via low bollard lighting fixtures.

- *Bicycles*
 - *Policy 4 – Require new commercial, industrial, and institutional development to provide on-site facilities for bicycle parking and storage.*

The plans provide the required bicycle parking and staff is including Condition of Approval 7 requiring that 25% of the bike parking be covered, per CDC Section 46.150(D).

- *Pedestrians*
 - *Policy 1 – Provide a comprehensive cohesive network of pedestrian paths, lanes, and routes that accomplishes the following objectives: a) connects the four commercial centers in Willamette, Bolton, Robinwood, and Tanner Basin; b) provides connections to schools, recreation facilities, community centers, and transit facilities; c) use off-street pedestrian “short-cut” pathways to provide routes where physical constraints or existing development preclude the construction of streets with sidewalks; d) provide safe, secure, and desirable walkway routes, with a preferred spacing of no more than 330 feet, between elements of the pedestrian network; e) eliminate gaps in the existing walkway network and provide pedestrian linkages between neighborhoods. Preference will be given to funding projects that eliminate gaps along arterial and collector streets.*
 - *Policy 2 – Employ a variety of methods to promote safe and convenient pedestrian access in addition to, or instead of, sidewalks in older developed areas of West Linn without sidewalks.*

The WTP proposal provides a pedestrian path that would connect the eastern end of Kenthorpe Way to Mapleton Drive. Creation of this path will eliminate the need for the City of West Linn to construct this intra-neighborhood connection, which will provide a benefit to children walking to and from Cedaroak Park Primary School. The application proposes to use a 'green streets' approach to frontage improvements that will be in keeping with the stated goal of providing alternatives to traditional sidewalks in older neighborhoods, such as Robinwood.

Goal 13 Energy Conservation

- *Policy 6 – Encourage the use of energy-conscious design and materials in all public facilities.*
- *Policy 7 – Encourage the construction and maintenance of sidewalks and bike paths/ways to promote alternative modes of transportation.*

Green roofs are included in the proposal as is capturing heat from warm areas of the plant and ducting it to cooler areas. The WTP site will include a pedestrian path connecting the eastern end of Kenthorpe Way to Mapleton Drive providing a more efficient pedestrian route (0.8 miles shorter), which will provide a benefit to children walking to and from Cedaroak Park Primary School, and may result in fewer automobile trips. Sidewalks will be provided along the Kenthorpe Way and Mapleton Drive frontages. An employee bike parking area will be created within the WTP's secured area.

Robinwood Neighborhood Plan

- *Goal 3, Policy 3.3 – Provide appropriate pedestrian facilities along residential streets.*
- *Goal 3, Policy 3.4 – Implement "green street" concepts for residential streets.*
- *Goal 3, Policy 3.7 – Use pedestrian shortcuts to connect existing streets.*
- *Goal 3, Policy 3.9 – Ensure that the Lake Oswego Water Treatment Facility on Kenthorpe Drive remains compatible with the surrounding residential areas and provides benefits to Robinwood's residents as well as those of Lake Oswego.*

As noted above, the applicant's proposal includes pedestrian facilities along Kenthorpe Way and Mapleton Drive that are designed to complement the neighborhood's character while improving safety for pedestrians. City of West Linn staff worked with the applicant in designing pedestrian facilities along Kenthorpe Way and Mapleton Drive that: protect the mature vegetative buffers between the site and adjacent residences, improve stormwater quality and detention capabilities from existing and newly created impervious surfaces, are consistent with the 'green street' guidance established in Policy 3.4 of the Robinwood Neighborhood Plan, and that complement the existing low-volume characteristic of this part of the neighborhood. The resulting proposed street improvements provide a 6-foot wide pedestrian sidewalk along Kenthorpe Way and Mapleton Drive separated from the vehicle travel lanes by a curbside drainage swale and/or rain garden.

One action measure listed under Policy 3.4 speaks to the possibility of undergrounding overhead utility lines. As residential development has occurred, utility lines have been placed underground. In situations where existing overhead utility lines run continuously along a street frontage, such as along Kenthorpe Way and Mapleton Drive, West Linn provides an option of fee-in-lieu of undergrounding a small section of overhead utility lines. This avoids the disruptive effect of road cuts and service interruption to residents that a piece-meal approach to undergrounding utilities creates. The applicant proposes to leave the overhead utility lines in place and pay a fee (based on an estimate of the cost to bury the lines in lieu of undergrounding overhead utilities) at this time; see Condition of Approval 12. However, a proposed new secondary power feed will be buried in the Kenthorpe Way right-of-way.

As a direct response to Policy 3.7, as previously mentioned, the applicant proposes a through-site pedestrian connection between Kenthorpe Way and Mapleton Drive that would be approximately 0.8 miles shorter than the existing pedestrian route between the segments of Kenthorpe Way and Mapleton Drive that abut the WTP property.

Policy 3.9 recognizes the probability of future development of the WTP and guides development in a manner that is compatible with surrounding residential uses and is beneficial to the neighborhood residents. The applicant proposes: dense, layered landscape screening; a compressed site layout; architectural styles complementary to the neighborhood and materials common within the Robinwood neighborhood including the use of wood, brick and earth tones; a construction management plan that ensures communication between project management and affected property owners; a pedestrian connection between Kenthorpe Way and Mapleton Drive and 'green street' improvements, as elements that will ensure compatibility and afford benefit to area residents.

The high level of landscape screening between the WTP operations and abutting residential properties is possible because the project designers, in consultation with neighbors, compressed WTP operations towards the center of the site; thereby providing large perimeter setbacks in which to grow dense landscape buffers.

Regarding compatibility during construction, the applicant has provided a Construction Management Plan that ensures continuous access to residential streets and homes and includes a mechanism for the applicant to notify residents of potential impacts from scheduled construction activity.

Robinwood residents will benefit from the through-site pathway connecting Kenthorpe Way and Mapleton Drive as well as the improved 'green street-scape' improvements that will improve the aesthetic and functional capabilities of the street. Finally, residents will benefit from the availability of an emergency water supply through the Lake Oswego intertie.

West Linn Water System Master Plan

As discussed under Finding 6, the City of West Linn Water System Master Plan recommends improving the emergency supply capacity and reliability of the Lake Oswego Emergency Supply Connection to meet West Linn's water supply need. The following is taken from the summary of the Water Supply Evaluation on page ES-5 of the West Linn Water Master Plan:

(Page ES-5) Water Supply Evaluation – A comprehensive and system wide supply system evaluation of City supply facilities was completed that included consideration of a number of approaches, methodologies and solution option development. The supply analysis was completed based on capacity needs, reliability, and redundancy and included consideration of piping, pumping, aquifer storage and finished water storage options. The analysis considered the following four solution approaches:

- *Solution Approach A: Construction of a new 8.4 million gallon Bolton Reservoir*
- *Solution Approach B: Build back-up supply transmission from SFWB*
- *Solution Approach C: Improve the emergency supply capacity and reliability of the Lake Oswego Emergency Supply Connection*
- *Solution Approach D: Aquifer Storage and Recovery (ASR)*

The four solution approaches presented above provide varying degrees of certainty, risks and costs. Based on input from and discussion with City staff and policy makers it is recommended that Solution

Approach C be pursued. Once fully developed and implemented this approach most economically meets the City's supply and reliability needs...

The applicant's proposal to expand their treatment capacity from 16 mgd to 38 mgd would improve the emergency supply capacity and reliability of the Lake Oswego Emergency Supply Intertie for several years (pending execution of an undated IGA) and directly thereby further the direction established in the West Linn Water Master Plan.

55.100(B)(2) – *heritage trees, significant trees and tree clusters shall be protected pursuant to the criteria established in subsections (B)(2)(a) through (f) of this section.*

Revised Finding No. 16: Staff concurs with the applicant's response to this criterion: The proposal is for a non-residential project on non-Type I or Type II lands. The City Arborist has determined that there are ~~44~~42 significant trees and tree clusters on site. Although the site layout maximizes the preservation of the significant trees, six significant trees are proposed to be removed. The applicant proposes to fully mitigate for the loss of significant trees in compliance with the West Linn Tree Technical Manual.

The applicant proposes to save the following clusters of trees (see Attachment A, Section 21, Figure 2.13~~Exhibit PC-3, Section 12, Figure 1~~):

- Northwest corner of site along Kenthorpe Way;
- Trees along western site boundary; and
- Trees along the eastern property boundary.

The applicant proposes to clear trees in the following areas (see Attachment A, Section 21, Figures 2.9 through 2.12):

- Trees around the sediment drying pond (~~Exhibit PC-3, Section 21, Figure 2.9~~)
- Trees near the proposed clearwell and construction staging area (~~Exhibit PC-3, Section 21, Figures 2.10 and 2.11~~)
- The row of interior trees ~~along~~ planted in 1996 (~~Exhibit PC-3, Section 21, Figures 2.10 and 2.11~~)
- A small cluster of trees near the interior northeast corner of the site (~~Exhibit PC-3, Section 21, Figure 2.11~~), and
- Trees along Kenthorpe Way that were planted per the 1996 land use approval (~~Exhibit PC-3, Section 21, Figures 2.9 and 2.11~~).

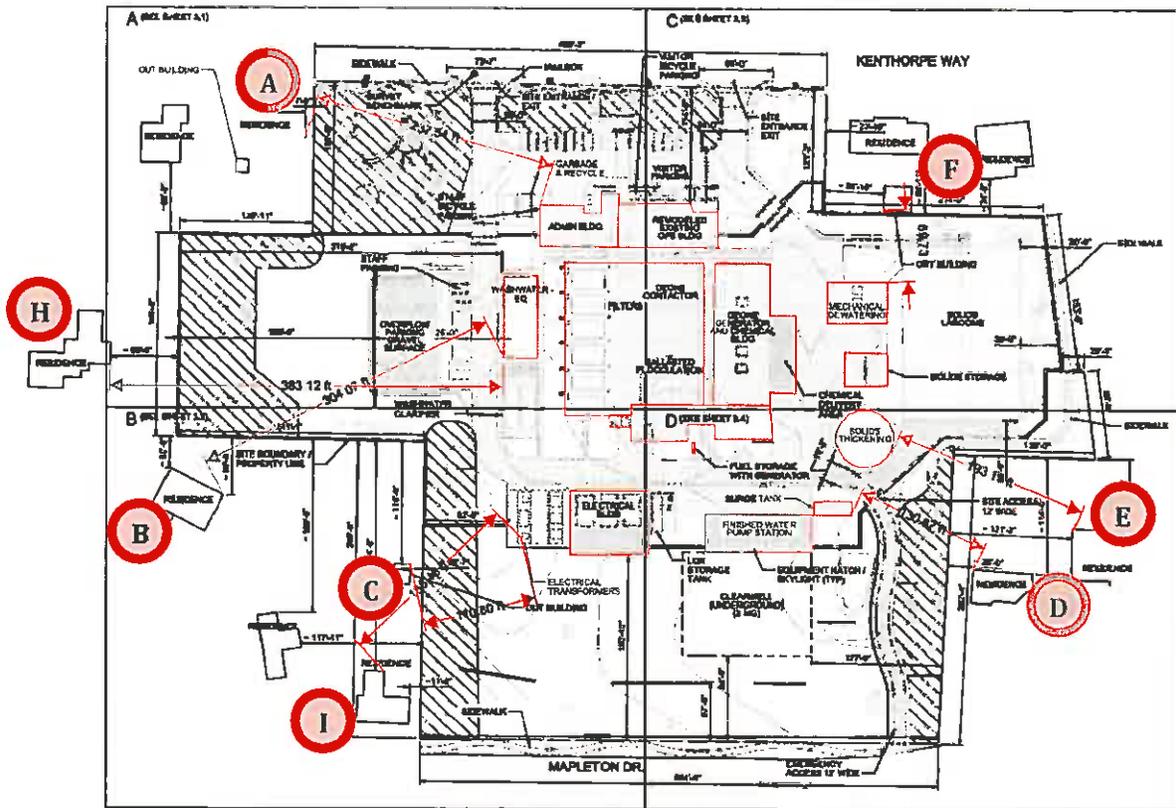
According to the applicant's submittal, the combined area of the dripline of the significant trees to be protected, plus an additional 10-foot diameter for each tree, is ~~72,700~~ 87,120 square feet, or ~~1822~~ percent of the total site area/non-Type I or Type II lands on site. The criterion is met.

55.100(B)(5) – *There shall be adequate distance between on-site buildings and on-site and off-site buildings on adjoining properties to provide for adequate light and air circulation and for fire protection.*

Revised Finding No. 23: According to the Applicant's proposed site plan, the minimum distance between any on-site and off-site building is approximately 70~~104~~-feet (distance between ~~liquid oxygen tank~~ mechanical dewatering building and adjacent ~~residences~~outbuilding at the northeast

corner of the site). The approximate distance between off-site and on-site buildings/structures is listed in the table below:

Map Location: off- and on-site features	Approx. Distance (ft)
A: residence in NW and Administration Building	216-238
B: residence in SW and Washwater Equalizer	294-304
C: residence outbuilding in SW and Electrical Transformers	230-111
D: residence in SE and Finished Water Pump Station surge tank	187-131
E: residence in SE and Solids Thickening Facilities	203-193
F: residence outbuilding in NE and Chemical Building-Mechanical Dewatering	119-70
G: residence in NE and Liquid Oxygen Tank	>104
H: residence in W and Washwater Equalizer	370-383
I: residence in SW and Electrical Transformers	284-185



The separation of on- and off-site buildings provides ample distance for light and air circulation. Additionally, the applicant proposes a looped service driveway with emergency/fire access to all site facilities, and with emergency/fire access from both Kenthorpe Way and Mapleton Drive. The criterion is met.

55.100(B)(6)(a) – *Predominant architectural styles in West Linn are contemporary vernacular and emphasize natural materials...*

Revised Finding No. 24: Staff concurs with the applicant's response on page ~~6354~~ of Section 4, ~~Exhibit PC-3 Attachment A~~: The emphasis in subsection (6)(a) is on taking architectural cues from vernacular residential design and incorporating them into neo-traditional residential design. There is also an acknowledgement that some of these residential design elements can be incorporated into commercial and office architecture. The WTP is not a commercial building nor is it an office complex; it is a major utility with a variety of non-office uses necessary to process raw water into finished water. The second floor of the Administration Building will contain about ~~1,300~~ **950** square feet of office uses but the balance of the WTP complex will be devoted to processing water. However, as discussed below, the applicant conducted a visual analysis of the surrounding neighborhood and has incorporated several of the significant architectural design elements into the WTP design, such as, wood, brick, earth tones, modulated roofs and horizontal planes. The criterion is met.

55.100(B)(6)(c). *While there has been discussion in Chapter 24 CDC about transition, it is appropriate that new buildings should architecturally transition in terms of bulk and mass to work with, or fit, adjacent existing buildings. This transition can be accomplished by selecting designs that "step down" or "step up" from small to big structures and vice versa (see figure below). Transitions may also take the form of carrying building patterns and lines (e.g., parapets, windows, etc.) from the existing building to the new one.*

Revised Finding No. 26: As shown on figures 10.0 ~~and through 10.10~~ of the applicant's submittal (~~Attachment A Exhibit PC-3, Section 21 and figure 10.2 in Exhibit PC-3, Section 23~~), the new buildings carry patterns, materials and lines from other buildings in the neighborhood throughout their design. ~~Additionally, building elevations slope gradually from approximately 30-feet at the north end of the site to approximately 20-feet near the south end of the site. While there is no step down transition between the northern-most site buildings and the adjacent residences to the north, there is more than 200-feet of separation. Additionally, distance and mature site vegetation as well as new landscaping along Kenthorpe Way and Mapleton Drive to act as a natural transition between these uses.~~ The criterion is met.

55.100(C)(2) – *On-site screening from view from adjoining properties of such things as service areas, storage areas, and parking lots shall be provided and the following factors will be considered in determining the adequacy of the type and extent of the screening:*

- a. *What needs to be screened?*
- b. *The direction from which it is needed.*
- c. *How dense the screen needs to be.*
- d. *Whether the viewer is stationary or mobile.*
- e. *Whether the screening needs to be year-round.*

Revised Finding No. 43: Staff concurs with the applicant's response: In addition to the site buffering requirements in (C)(1) above, site specific uses such as, visitor, staff and overflow parking; waste and recycling service areas; fuel storage tank; electrical transformers; solids thickeners; liquid oxygen tanks; chemical delivery area; and solids loading area, should be screened from public rights-of-way and from abutting residential properties year-round. Because the visitor parking

area must be accessible to WTP visitors, 100 percent screening between the visitor parking area and Kenthorpe is unnecessary.

Uses specific to the internal operations of the WTP, such as staff and overflow parking, storage tanks, electrical transformers, and chemical and solids loading areas will be completely screened because they will be placed to the interior of the WTP complex and will be surrounded by solid building walls, architectural screening walls, rolling gates or a good neighbor fence. The ~~three~~ single solids thickeners will be approximately ~~ten~~ five feet tall, ~~exceeding the height of the architectural fencing by 2-feet~~. The thickeners ~~are~~ is approximately ~~55~~ 45-feet from the nearest WTP property line, ~~behind an architectural security wall~~ and the existing mature vegetation along the property line will not be removed. In addition, the Partnership conducted a supplemental lighting analysis and determined that mature coniferous trees, approximately 14-feet tall, should be installed in key locations to further minimize the potential impact of WTP lighting. See Attachment A, Section 21, Figures 5.5C and 5.5E. The criterion is met.

55.100(1)(2) – *Drainage. A registered civil engineer shall prepare a plan and statement which shall be supported by factual data that clearly shows that there will be no adverse impacts from increased intensity of runoff off site or the plan and statement shall identify all off-site impacts and measures to mitigate those impacts. The plan and statement shall, at a minimum, determine off-site impacts from a 25-year storm. The City Engineer shall adjust storm drainage facilities for applications which contain permeable parking surfaces based upon a quantitative analysis of the increased water retention and water quality characteristics of the permeable parking surface. Catch basins shall be installed and connected to pipelines leading to storm sewers or drainageways. All plans will then be reviewed by the City Engineer.*

Revised Finding No. 49: The existing site is approximately 9.24 acres and contains approximately 1.51 acres of impervious surfaces, or 16 percent of the total site. The proposed design will increase the overall impervious areas of the site by approximately ~~1.45~~ 1.12 acres, bringing the total impervious areas of the site to ~~2.96~~ 2.63 acres; an increase in the overall impervious area of ~~46~~ 12.46 percent (~~32~~ 28.46 percent total; below the 35 percent maximum impervious area requirement). The applicant's stormwater plan (Attachment A Exhibit PC-3, Section 16) indicates that sufficient stormwater facilities have been proposed to accommodate the impacts outlined in Subsection 2 above.

Approximately 17,845 square feet of pervious pavement has been proposed as an impervious area reduction technique for the parking stalls near the administration building and Mapleton Drive emergency access road and path. The use of pervious pavement will reduce the overall effective impervious pavement area to 1.73 acres (19 percent of the site). Proposed Condition of Approval 8 would require the proposed vegetated swales along Kenthorpe Way and Mapleton Drive to be located between the street and sidewalk except in those areas where an alternate configuration is necessary to protect mature trees. Additionally, this Condition requires the applicant to execute a stormwater maintenance agreement with the City of West Linn, and record a public storm drainage easement, for all stormwater treatment and detention facilities located on private property.

42.020(A,B).

A. *A clear vision area shall be maintained on the corners of all property adjacent to an intersection as provided by CDC 42.040 and 42.050.*

B. A clear vision area shall contain no planting, fence, wall, structure or temporary or permanent obstruction (except for an occasional utility pole or tree) exceeding three feet in height, measured from the top of the curb, or, where no curb exists, from the street centerline grade, except that trees exceeding this height may be located in this area, provided all branches below eight feet are removed. (Ord. 1192, 1987)

Revised Finding No. 77: Staff partially concurs with the applicant’s response: “The property is not located on an intersection corner. Thirty-foot clear vision triangles from the driveways onto Kenthorpe Way, which are 24[26-] feet wide or more, are shown in [Attachment A, Section 21, Figure series 3 Exhibit PC-3, Section 23, Figures 3.1 and 3.3].”

~~“The landscape planting plans, Attachment A, Section 21, Figure 11 and Figure series 12, Exhibit PC-3, Section 23, Figures 12.1–12.4 provide for plant materials that are three feet tall or less at maturity or include trees with branches 8 feet or more above grade level. The clear vision triangle for the 20-foot wide emergency access road will depend upon the location of the emergency access gate. The gate could be located 30 feet back from the property line, consistent with subsection CDC 42.050. Or, because emergency vehicles will use the road only during emergency situations, the gate could be located closer to the right-of-way.”~~

~~Because it is important that pedestrians and bicyclists using the emergency access portion of the through-site path have clear vision of vehicles and other pedestrians using Mapleton Drive, the applicant needs to locate the emergency access gate 30 feet from the Mapleton Drive right-of-way line. Proposed Condition of Approval 6 provides for this. The emergency access gate will not exceed 3-feet in compliance with subsection 42.020(B). See Attachment A, Section 21, Figure series 14. The criterion is met.~~

46.090 Minimum off-street parking requirements

<u>Commercial.</u>	
<i>Professional offices, banks and savings and loans, and government offices.</i>	<i>One space for every 350 sq. ft. of gross area</i>
<u>Industrial.</u>	
<i>Manufacturing use; may include assembly and distribution.</i>	<i>One space per employee. (Multi-shift businesses only need to provide for peak shift number of employees on site at one time.)</i>

Revised Finding No. 84: Staff concurs with the Applicant’s response: The WTP currently has eleven marked parking spaces, including one ADA space. The parking lot also accommodates seven or more cars in an unmarked paved area during overflow times. The parking space calculation table in CDC 46.090 does not include a water treatment plant; therefore CDC 46.100, Parking Requirements for Unlisted Uses, applies. Consequently, the design team calculated parking space demand using a combination of building square footage and employee count for similar uses.

The WTP will eventually employ approximately 12-13 FTEs who will work shifts over the 24-hour period. It is not anticipated that more than half of the employees will be on site at the same time. Although the WTP is not an industrial facility, subsection (E)(1) of Table CDC 46.090 provides that one parking space shall be provided for each employee, however, in the case of multiple shifts, fewer spaces are permitted. Consequently, there will be seven employee parking spaces inside the secured core of the WTP (see [Attachment A Exhibit PC-3](#), Section 21, Figure 7.0).

To calculate the correct number of office and visitor parking spaces, the design team used the square footage calculation method as provided in CDC 46.080(B). The second story of the Administration and Operations Buildings provide space for offices, a laboratory, control room, conference room, training room and office/visitor support areas. The total square footage of the second stories of both buildings is approximately [5,8845,700](#) square feet. At a ratio of one parking space for every 350 square feet of gross area, the WTP public area should provide [16.816.2](#) parking spaces which, when rounded up, equals 17 parking spaces. Consequently, the visitor's parking area provides 17 parking spaces. The criterion is met.

46.120 Driveways required on-site. *Any school or other meeting place which is designed to accommodate more than 25 people at one time shall provide a 15-foot-wide driveway designed for continuous forward flow of passenger vehicles for the purpose of loading and unloading passengers. Depending on functional requirements, the width may be increased with Planning Director approval.*

Revised Finding No. 87: Staff concurs with the applicant's response: The WTP is not a school but groups of 25 or more school children visit the site frequently, sometimes arriving by bus. The school visitors may be dropped off directly in front of the primary WTP entryway. The WTP also hosts meetings, primarily meetings of Lake Oswego staff or technical groups who generally arrive by car. The proposed driveway from Kenthorpe Way has a [2426](#)-foot travel lane and provides for the continuous flow of traffic from one entry point to the other. Consequently, the WTP driveway design accommodates a continuous flow of traffic as required by CDC 46.120. The criterion is met.

46.130 Off-street loading spaces. *Buildings or structures to be built or substantially altered, which receive and distribute material or merchandise by truck, shall provide and maintain off-street loading and maneuvering space. The dimensional standard for loading spaces is a minimum of 14 feet wide by 20 feet long or proportionate to accommodate the size of delivery trucks that typically serve the proposed use as follows:*

Revised Finding No. 88: Staff concurs with the Applicant's response: Table 46.130 does not identify the WTP as a use requiring off-street loading spaces. However, the WTP receives weekly deliveries of materials by truck; therefore the site design provides a chemical delivery area and solids loading area, see [Attachment A Exhibit PC-3](#), Section 21, Figure 7.0. The drive lanes are [2426](#) feet wide for more than 1200 feet in length. The loading areas can accommodate delivery vans and trucks as well as semi-trailers. The criterion is met.

46.150(A)(4). *Service drives shall be designed and constructed to facilitate the flow of traffic, provide maximum safety of traffic access and egress, and maximum safety of pedestrians an vehicular traffic on the site.*

Revised Finding No. 91: Staff concurs with the applicant's response: The service drives are located off of Kenthorpe Way. The drive lanes are a minimum of [2426](#)-feet wide, accommodating two-way

traffic. The pedestrian access across the parking lot to Kenthorpe Way is clearly marked. The 2426-foot wide service drive continues through the secured area of the WTP providing safe traffic movement and emergency access throughout the site. The criterion is met.

46.150(A)(5). Each parking and/or loading space shall have clear access, whereby the relocation of other vehicles to utilize the parking space is not required.

Revised Finding No. 92: Staff concurs with the applicant’s response: Loading spaces in the WTP interior are accessible from two directions. The visitor parking area is served by a 2426-foot wide travel lane which provides for clear access into the parking spaces.

46.150(D).

1. Provisions shall be made for pedestrian and bicycle ways if such facilities are shown on an adopted plan.
2. Bicycle parking facilities shall either be lockable enclosures in which the bicycle is stored, or secure stationary racks which accommodate bicyclist’s locks securing the frame and both wheels. The bicycle parking shall be no more than 50 feet from the entrance to the building, well-lit, observable, and properly signed.
3. Bicycle parking must be provided in the following amounts:

LAND USE CATEGORY	MINIMUM REQUIRED BICYCLE PARKING SPACES	MINIMUM COVERED AMOUNT
Libraries, Museums, Government Offices, etc.	2, or 1.5 spaces per 1,000 gross sq. ft., whichever is greater	25%

Revised Finding No. 111: An ~~employee 8-space, covered~~ bicycle parking area is proposed adjacent the ~~employee parking area west side of the plant’s main entrance~~ and a ~~visitor 4-space~~ bicycle parking area is provided ~~in on the Kenthorpe Way landscaped area directly across from the WTP public entrance, adjacent to the visitor parking area east side of the plant’s main entrance (see Attachment A Exhibit PC-3, Section 2321, Figures 3.0, 3.1 and 3.3).~~ Based on the applicant’s estimate of approximately 5,800 square feet of office space, as a proposed condition of approval ~~7~~ the Applicant will be required to ensure that bicycle parking in the visitor and employee parking areas provide capacity for 12 bicycles. Furthermore, at least 3 of the bicycle parking spaces will be required to ~~1~~ be covered. The criterion is met.

48.040 Minimum Vehicle Requirement for Non-residential Uses. Access, egress, and circulation system for all non-residential uses shall not be less than the following:

- A. Service drives for non-residential uses shall be fully improved with hard surface pavement:
 1. With a minimum of 24-foot width when accommodating two-way traffic; or
 2. With a minimum of 15-foot width when accommodating one-way traffic. Horizontal clearance shall be two and one-half feet wide on either side of the driveway.
 3. Meet the requirements of CDC [48.030\(E\)\(3\)](#) through (6).

4. Pickup window driveways may be 12 feet wide unless the Fire Chief determines additional width is required.

B. All non-residential uses shall be served by one or more service drives as determined necessary to provide convenient and safe access to the property and designed according to CDC 48.030(A). In no case shall the design of the service drive or drives require or facilitate the backward movement or other maneuvering of a vehicle within a street, other than an alley.

C. All on-site maneuvering and/or access drives shall be maintained pursuant to CDC 46.130.

D. Gated accessways to non-residential uses are prohibited unless required for public safety or security.

Revised Finding No. 120: Staff concurs with the Applicant's response:

The access, egress, and circulation system for the WTP complex is provided as follows:

A. The two driveway access points from Kenthorpe Way are 24.26-foot wide; the width is carried through the interior of the WTP complex, providing two-way traffic opportunities through the facility. See Attachment A Exhibit PC-3, Section 23.21, Figures 3.1 – 3.4. There are no one-way drive lanes or pick-up windows. CDC 48.030(E) applies only to multi-family projects. However, assuming that these multi-family standards are to be applied to a non-residential project, the WTP access driveways will:

- be a minimum of 24.26-foot wide;
- provide a vertical clearance of a minimum of 13 feet 6 inches;
- provide circular, rather than one-way travel, that has an average grade of less than 7%;
- provide a minimum centerline turning radius of 45 degrees for the curve; and
- provide an approach grade of less than 10% because the average site grade is less than 2%.

B. The WTP facility provides two driveways from Kenthorpe Way. In no case will any service vehicle be required to maneuver backwards into a street or alley.

C. The internal access road provides chemical delivery and solids loading areas, consistent with CDC 46.130 requirements for off-street loading spaces. See Attachment A Exhibit PC-3, Section 21, Figure 7.0.

D. Gated accessways are required for public safety and security at the WTP. The WTP is a critical public facility, providing clean drinking water to tens of thousands of people on a daily basis and emergency water to West Linn. In addition, water-processing activities, which occur within the secure WTP core area, require professional management and oversight and these work spaces are not readily accessible to the public. Consequently, three security gates, consistent with the requirements of the TVFR, will control the interior of the WTP complex. See Attachment A Exhibit PC-3, Section 18. The emergency access road from Mapleton Drive will also be controlled by swing gates with a pedestrian entryway, as recommended by the neighbors and by TVFR. See Attachment A Exhibit PC-3, Section 23.21, Figure 14.1-Detail 2. The criterion is met.

48.050 One-way vehicular access points. Where a proposed parking facility plan indicates only one-way traffic flow on the site, it shall be accommodated by a specific driveway serving the facility, and the entrance drive shall be situated closest to oncoming traffic, and the exit drive shall be situated farthest from oncoming traffic.

Revised Finding No. 121: The Applicant proposes a ~~2426~~-foot wide, two-way driveway to serve both the employee and visitor parking areas. The criterion does not apply.

54.020(A). A. *Every development proposal requires inventorying existing site conditions which include trees and landscaping. In designing the new project, every reasonable attempt should be made to preserve and protect existing trees and to incorporate them into the new landscape plan. Similarly, significant landscaping (e.g., bushes, shrubs) should be integrated. The rationale is that saving a 30-foot-tall mature tree helps maintain the continuity of the site, they are qualitatively superior to two or three two-inch caliper street trees, they provide immediate micro-climate benefits (e.g., shade), they soften views of the street, and they can increase the attractiveness, marketability, and value of the development.*

Revised Finding No. 129: Staff concurs with the Applicant's response:

The applicant's professional arborist prepared an inventory of trees consistent with the West Linn Tree Technical Manual. (See ~~Attachment A, Section 12~~~~Exhibit PG-3, Section 22~~, Tree Protection Plan). The West Linn Arborist determined that there are ~~4142~~ significant trees or significant tree clusters. By compressing WTP functions to the center of the site, the applicant has been able to protect ~~3536~~ of the ~~4142~~ significant trees. The significant trees are protected in clusters along the northeast and northwest corners of the Kenthorpe Way frontage and around the property perimeter.

Conflicts inevitably arise in a development code between the desire to protect vegetation on the one hand and the need to allow future development and the associated construction demands on the other hand. To help mediate this conflict CDC 55.100(B)(2) makes it clear that significant trees should be protected but that not all significant shall be saved. One area of conflict is along Kenthorpe Way. The proposed site design protects the significant trees and tree clusters, along with the non-protected vegetation, at the northeast and northwest site corners. Although the City Arborist did not identify any significant trees in the landscaped area between the current visitors' parking lot and the WTP Operations Building, the present landscaping provides a desirable visual buffer. However, CDC 55.100(B)(7), implementing the Transportation System Rule (TPR) strongly encourages pedestrian access from public right-of-ways to the primary building entryway.

Consequently, the applicant has proposed a pedestrian walkway from Kenthorpe Way directly to the WTO public entrance, as required. One significant tree to the east of the Operations Building will be removed to provide the necessary driveway turning radius for delivery trucks and emergency vehicles. Similarly, a conflict between vegetation protection and site functionality arises in the south end of the site. The City Arborist identified significant trees along the southern perimeter of the site and within the open area in the south-center.

The WTP must store finished water to pump into the system for both daily customers and for emergency back-up in West Linn. Such storage requires a holding tank with ~~3~~ ~~2~~MG of storage capacity. One way to create such capacity is to erect a large tank above ground; but this solution would not be possible with a 35-foot height limitation in the zone and it would present a very large blank wall facing Mapleton Drive. The alternative is to bury the tank, a clearwell, in a 30-foot deep hole. The excavation and construction staging will necessitate the removal of designated significant trees.

The design team considered moving the clearwell to the east and to the west but in each direction there are more significant trees. The location of the clearwell was also determined by the need to

build an emergency access lane from Mapleton to the WTP facilities. See the TVFR memorandum in [Attachment A Exhibit PC-3](#), Section 18. As a result, five significant trees in the southern side of the site will be removed. Creative site planning, responsive to neighborhood concerns forced the WTP facilities into the center of the site.

The design decision results in the protection of 3536 out of 4142 significant trees, primarily along the site perimeter. Together with the non-significant bushes and trees along the site frontages and residential perimeter, the WTP site design has made every reasonable effort to incorporate existing vegetation into the landscape plan.

The criterion is met.

54.020(E)(2). *A minimum of 20 percent of the gross site area shall be landscaped. Parking lot landscaping may be counted in the percentage.*

Revised Finding No. 133: The applicant proposes to landscape 5758 percent (5.2738 acres) of the total WTP site area, excluding parking lot areas (see [Attachment A Exhibit PC-3](#), Section 16, Table G-3, page 4). The criterion is met.

54.020(E)(3)(i) *Outdoor storage areas, service areas (loading docks, refuse deposits, and delivery areas), and above-ground utility facilities shall be buffered and screened to obscure their view from adjoining properties and to reduce noise levels to acceptable levels at the property line. The adequacy of the buffer and screening shall be determined by the criteria set forth in CDC 55.100(C)(1).*

Revised Finding No. 141: Staff concurs with the applicant's response: The applicant responded to the requirements of CDC 55.100(C)(1). All of the WTP storage areas, service areas and process utility functions are buffered and screened by building walls, architectural security fencing, visual screening barriers, existing vegetation and a dense planting of new vegetation, including approximately 308 new trees. Additionally, the applicant conducted a supplemental lighting analysis and determined that mature coniferous trees, approximately 14-foot tall, should be installed in key locations to further minimize the potential impact of WTP lighting. See Attachment A, Section 21, Figures 5.5C and 5.5E. The criterion is met.

Attachments

- [Attachment A: Applicant's submittal, amended August 20, 2012](#)
- **Attachment B:** Affidavit of notice and mailing packet
- **Attachment C:** Public comments received since May 16, 2012 (last Planning Commission public hearing regarding CUP-12-02/DR-12-04)
- **Attachment D:** Approved minutes from [April 18](#), [April 25](#), [May 2](#) and [May 16](#), 2012
- **Attachment E:** New emergency water intertie IGA

**Attachment A: Applicant's revised submittal,
August 20, 2012**

