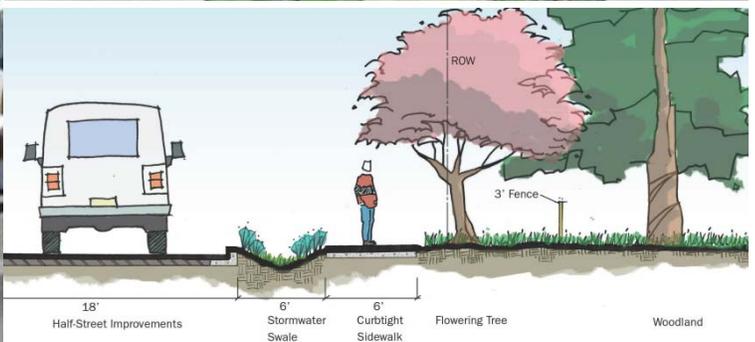


# Good Neighbor Plan Lake Oswego Tigard Water Partnership Water Treatment Plant



December 19, 2011

# Lake Oswego Water Treatment Plant: Good Neighbor Plan

## Purpose

Lake Oswego Tigard Water Partnership (Partnership) and Robinwood Neighborhood Association (RNA) have collaborated to develop a *Good Neighbor Plan* (Plan) that will guide facility and site design, construction, and operation for the Partnership's drinking water treatment plant in West Linn. The Plan reflects a good faith effort and commitment by both parties to ensure the water treatment plant will remain compatible with its surroundings and continue to be a good neighbor as the plant is modified and expanded for the future.

The Plan reflects a current understanding of future conditions and plans. As circumstances change, the Partnership and the RNA fully expect to update the Plan and make any changes needed to achieve the parties' shared goals.

## Introduction

The City of Lake Oswego has operated a drinking water treatment plant in West Linn's Robinwood neighborhood since 1968. The site is zoned R-10 (residential). West Linn defines WTP use as "Utility, major", allowed in R-10 as a conditional use. In 1996, West Linn approved a conditional use and design review for WTP expansion, with 19 conditions of approval. Lake Oswego is in compliance with all 1996 approval conditions. Operating at its present location for over forty years, the plant has generally earned a reputation for being a good neighbor.

Now, the Partnership plans to upgrade and expand the treatment plant to meet Lake Oswego's and Tigard's current and future drinking water needs. The upgraded plant will supply both communities and will also continue to serve as West Linn's only source of emergency and backup drinking water supply. As the treatment plant expands, further steps must be taken to ensure the facility remains compatible with its neighbors and quiet setting.

The Partnership is committed to keeping water treatment plant neighbors informed and involved throughout the water treatment plant improvements. The project team has worked with plant neighbors, RNA, and the City of West Linn to develop the Plan.

The Plan ensures neighbors' interests are considered through the life of the project and beyond. The Plan includes guidelines for every phase: design, construction, ongoing operations, and communications.

## The Planning Process

The Plan was developed over a twenty-month period (April 2010 to December 2011). The process included:

- 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 4, 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
- Robinwood NA 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 Manager’s 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 land use code
  - ✓ November 10, 2011

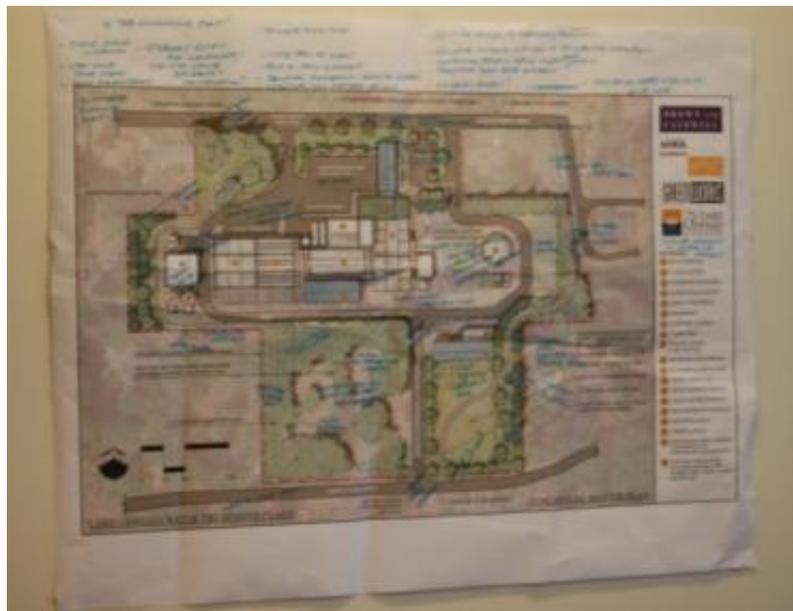
An RNA Subcommittee was formed in May 2011 to provide additional input to further the Plan.

The Partnership Oversight Committee reviewed specific requests by the Robinwood Neighborhood at its December 12, 2011 meeting. Mutually supported ideas have been incorporated into the plan.

### Good Neighbor Plan Components

The next sections outline Plan recommendations for:

- Water Treatment Plant Design
  - Landscape / site design
  - Facility design
  - Access
- Off-site improvements
- Construction
- Ongoing operations
- Communications



**Neighbors added their suggestions to enhance the water treatment plant site design.**

## **Water Treatment Plant Design**

The Water Treatment Plant will be upgraded and the capacity increased from 16 to 38 mgd (million gallons per day) utilizing Lake Oswego's maximum water rights from the Clackamas River.

The recommended plan is to reconfigure the plant and convert the treatment process from direct filtration to conventional treatment plus ozone. Other modifications include a new, larger clearwell (underground reservoir) and treated water pump station, mechanical process to handle solids, upgrades to chemical feed systems, miscellaneous improvements to existing buildings, a pathway and site re-landscaping.

The following recommendations supported by neighbors and the Partnership will be used by the water treatment plant design team to help create a facility that blends in with the neighborhood.

### **Landscape/Site Design**

- Provide setbacks compatible with those for nearby neighborhood homes that meet West Linn zoning standards.
- Buffer the facilities from adjacent properties using appropriate manufactured or natural systems where suitable and possible.
- Mitigate lost tree canopy on site by removing invasive species and planting native trees and plants per the COWL Code requirements. For needed off-site mitigation, pay into the West Linn "Canopy Replacement Fund" so that that West Linn may determine the best location for replanting. Neighbors have expressed a desire for additional Trillium Creek mitigation within the neighborhood.
- Consider "green" features for the treatment plant:
  - Native vegetation to conserve water
  - Energy conserving pumps, lighting and electrical equipment
  - Solar collectors for renewable power generation
- Landscaping, fencing and walkways should be designed to fit the residential setting.



**Landscaping will enhance the residential look and feel of the facility.**

## Facilities

- Locate taller process facilities in the central area of the site, away from homes, rather than near property setbacks and adjacent to homes.
- Design buildings visible from the neighborhood to have residential scale and appearance.
- Locate new clearwell, pump house and electrical building so that minimum setbacks between the new facilities and homes are exceeded.
- Design facilities to minimize off-site treatment plant noise and odors. Measure baseline noise level around the existing plant.
- Use low level lighting for water treatment plant facilities; prevent off-site glare and light trespass.
- Install fence with non-industrial appearance, designed to fit the neighborhood setting yet provide adequate security.



**Residential scale and design features will make the treatment plant better fit the neighborhood setting.**

## Access

- Build a pedestrian path – buffered from adjacent property owners – that connects Mapleton Drive with Kenthorpe Way and meets West Linn development code standards.
- Install a half street improvement along the Water Treatment Plant frontage (Kenthorpe and Mapleton) frontage with "Green Street" treatment.
- Locate fence line to provide public access to a portion of the Mapleton Drive parcels.
- Every effort will be made to maintain vehicle access to driveways during construction and minimize any road closures. Periodically, it may be necessary to close a road or to provide a detour. When this occurs, advance warning will occur and signage or flaggers will guide drivers through detour routes. Access to homes for emergency vehicles will always be maintained.

## Construction

Construction of the upgraded and expanded treatment plant is expected to take approximately twenty eight months. Mitigating the impacts of construction on treatment plant neighbors is a top concern of neighbors and a top priority for the Partnership in protecting neighborhood livability.

The contractor will be required to meet noise, erosion, emissions, dust, traffic and parking, work hours, site security and safety standards. The following construction mitigation measures identified by neighbors and Partnership will also be required of the contractor:

- Shut off idling equipment when not in use. Schedule noisier construction operations to limit their duration. Give advance notice to neighbors when noisy work will occur outside these times.
- A regular "Coffee with the Construction Manager" will be provided throughout construction as long as there is interest on the part of neighbors and others.
- All off road construction equipment operating on site will use ultra low sulfur diesel, be in good working order and will comply with current emissions standards as applicable to new and used off-road diesel equipment and fuel.

- As much as practicable, locate noise producing activities/equipment in central part of site, away from neighbors.
- All noise generating activities will conform to COWL, Oregon Department of Environmental Quality, and Occupational Safety and Health (OSHA) requirements. Noisy portable equipment, such as generators or compressors will be located as far from residential receptors as practicable. Perimeter, noise dampening fencing will be used to limit noise impacts where needed.
- Maintain vehicular, bicycle, pedestrian and emergency vehicle access to area homes throughout construction.
- Every effort will be made to load and unload equipment and materials on the Water Treatment Plant property during plant construction. In the event that materials need to be unloaded on residential streets, flaggers will be used to ensure that the safety of the travelling public is the highest priority.
- Ensure safe pedestrian, bicycle and vehicular school commute during the construction period.
- Provide off-street / off-site parking for construction workers during construction. Some on-site parking for construction supervisor, inspector and project management staff will be provided.
- Use visible ID badges or other methods to identify construction workers.
- Maintain pavement condition on Mapleton Drive and Kenthorpe Way, during and after construction.
- Require reduced speed limit for construction vehicles when traveling through residential neighborhoods if allowed by COWL standards.

The City of Lake Oswego will also:

- After a construction contractor is hired, identify all construction material staging areas, temporary offices and trailers and equipment and commuter parking areas, on and off the plant site for the RNA.
- Provide 24/7 construction hotline telephone number that provides access to report problems.
- Coordinate with the City of West Linn on construction of West Linn infrastructure projects during water project work to see if there are opportunities for West Linn to save money.
- Lake Oswego will repair or rebuild, if required, all streets that are damaged by Water Partnership projects to as good or better condition as prior to construction and according to COWL standards.
- Use informational signage and lights at Mapleton and Hwy 43 and Nixon intersections to indicate closures and other road conditions.
- Any street reconstruction or paving will meet COWL engineering standards for grading to meet surface water flows. The City of West Linn Engineering Department will review all plans for consistency with its requirements. If, at the time of paving, COWL would like to install additional surface water improvements, Lake Oswego will coordinate with them.
- Maintain landscape where visible to neighbors to a level appropriate to the location and type of landscaping.
- Report to Robinwood Neighborhood Association on construction activities as needed.

### ***Ongoing Operations***

Once construction is complete, the Partnership will continue to operate the treatment plant with a high level of sensitivity to its neighbors. The neighborhood and Partnership agree the following neighborhood requests will be incorporated into the plant's standards of operation.

- Minimize off-site treatment plant noise and odors.

- Allow controlled use of the Treatment Plant's future emergency access road by Kenthorpe Way neighbors in the event of an emergency that would block access for residents of this dead-end street.

## Communications

Communications among the RNA, treatment plant neighbors and the Partnership team will occur throughout the plant upgrade and expansion project as well as after upgrades are completed. After the new treatment plant is on-line, plant staff will periodically communicate with neighbors and the RNA.

Lake Oswego's water treatment plant has an emergency response plan in place, and procedures are closely coordinated with the local emergency responders: Tualatin Valley Fire & Rescue and West Linn Police Department. Tualatin Valley Fire & Rescue inspects the plant facilities at least annually. In event of an emergency, communications with plant neighbors would be initiated by the noted emergency responders.

Full information on drinking water treatment chemicals used on-site is maintained at the treatment plant. Plant staff are available to answer neighbors' questions about these chemicals. The plant's drinking water disinfection process was converted years ago to use a sodium hypochlorite (bleach) solution. There is no use or storage of chlorine gas on-site.

The following communication strategies will be implemented by the WTP staff.

- Treatment plant staff continue to provide information and answer neighbors' questions about chemicals used and stored on-site, and transported through the neighborhood.
- Hazard analysis and hazard response plan for all chemicals at the plant to be shared with West Linn residents.
- Continued use of Tualatin Valley Fire and Rescue reverse 911 alert system.
- Update neighbors and the Robinwood Neighborhood Association on any changes in process chemicals or emergency procedures affecting neighbors.
- Hold an open house/tour at the treatment plant once or twice per year.
- Keep neighbors informed about the pertinent plant activities through community meetings, website and email updates, mailings and presentations at RNA meetings.

## Learn More

For more information about the Lake Oswego Water Partnership or the Good Neighbor Plan for the Partnership's water treatment plant contact:

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For information about the water treatment plant:  
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**A water treatment plant open house held in August 2010 was well attended by neighbors.**