

**City of Lake Oswego/Tigard Water Partnership
Water Treatment Plant Expansion Project
Land Use Permit – Construction Management Plan
Amended March 29, 2012
(Originally Submitted on January 12, 2012)**

1.0 Purpose

This document describes the Construction Management Plan (CMP) specific to the Water Treatment Plant (WTP) Expansion as required by the City of West Linn Land Use Application; all figures cited in this plan are included in Section 21 of the Land Use Application Packet.

2.0 Project Overview

The existing WTP, originally constructed in 1967 to treat up to 10 million gallons per day (mgd) of water from the Clackamas River, was expanded in 1980 to its current treatment capacity of 16 mgd. In 1996, pursuant to conditional use and design review approvals, the WTP was upgraded to address neighborhood concerns regarding use of chlorine gas for water disinfection and to respond to more stringent water treatment regulations promulgated under the federal Safe Drinking Water Act (SDWA). Each prior expansion or upgrade of the WTP was determined by the City of West Linn to satisfy all conditional use and design review criteria and thus was allowed to proceed. For this current proposal, the WTP will be expanded to 38 mgd to replace obsolete, unreliable supply infrastructure and provide additional supply capacity for the next 50 plus years to satisfy current and long term water supply needs of Lake Oswego and the City of Tigard. Throughout the 32-month construction period, the existing WTP must continue producing safe drinking water in adequate quantity for City residents and wholesale customers. This objective will determine construction sequencing, duration, and work hours, and is the imperative upon which this construction management plan is developed.

3.0 Construction Schedule

The schedule for construction activities and associated durations is subject to local land use approvals. Assuming land use approval is received within 120 calendar days from notice of a technically complete application, activity start and anticipated durations are summarized below:

- Pre-Construction/Site Preparation Activities (3 months): March 2013 – May 2013
- Major Construction Activities (26 months): June 2013 – July 2015
- Post-Construction/Finish Work Activities (3 months): August 2015 – October 2015

Activities associated with this proposed CMP and as generally described above, are further detailed in the following subsections.

3.1 Pre-Construction/Site Preparation Activities

Prior to commencement of major construction activities, the following will be completed:

- Submittal for review and approval of a Traffic Control and Management Plan to the City of West Linn Engineering Department. This plan will include haul routes and details for establishment of temporary traffic control changes and signage in compliance with City requirements and the Manual of Uniform Traffic Control Devices;
- Installation of tree protection and site security fencing as shown in the approved application;
- Installation of erosion control best management practices as shown in the approved application; the applicant will submit a copy of an approved 1200-C permit to the City as evidence of compliance with Oregon Department of Environmental Quality regulations for construction site erosion/sediment control requirements;
- Establishment of Contractor and key Sub-contractor on-site construction offices, materials laydown and storage areas on property owned by Lake Oswego.
- Establishment of offsite parking areas. Applicant will furnish West Linn engineering staff with locations of offsite parking areas for construction parking.
- Existing trees authorized for removal by West Linn pursuant to the Final Conclusions and Order for the WTP application will be removed from the construction site.
- A digital video record to document existing conditions within the public right of way abutting the project site. This record will establish the preconstruction condition of visible surface improvements and conditions within the public rights of way that abut the property boundary's of the WTP site. A copy of this digital record will be provided to the City upon request.
- A communications plan will be developed that includes detailed information of communication means, methods, schedules, and key contacts for the project. A copy of this plan will be provided to the West Linn Public Works Department, Chairs of each Neighborhood Association within West Linn and posted to the project website.
- Project signage: Project signage will be placed strategically around the active work site and at offsite locations as may be approved by the City of West Linn Public Works Department as an element of the Traffic Control and Management Plan and Communications Plan. Emergency contact information will be provided on such signage.

3.2 Major Construction Activities

Construction activities will include:

- Establishing construction survey control monuments

- Conduct preliminary site investigations
- Site preparation
- Demolition of existing facilities
- Excavation
- Construction, including:
 - Civil Works – Earthwork, buried utilities and roadways
 - Structural/Architectural Works – Concrete and steel frame building construction
 - Mechanical Works – Including plumbing and HVAC
 - Electrical and Instrumentation – Including primary and secondary site power
 - Offsite frontage improvements to include half-street improvements comprising pavement restoration, surface water quality improvements, new pedestrian facilities and coordination of non-project related public improvements with the City of West Linn Public Works Department.
- Landscape, trail and final treatment plant road frontage work

Construction hours of work will be as allowed by the City of West Linn and will occur as follows:

Monday through Friday 7 a.m. to 7 p.m.

Saturday and Sunday 9 a.m. to 5 p.m.

Because the work will require connection to active water treatment facilities, temporary interruptions to normal water treatment plant operating schedules will be required. To minimize the frequency and duration of plant outages, work outside allowed work hours as noted above will be required. Not less than seven (7) days advance notice to the City Public Works Department, City Manager and Chair of the Robinwood Neighborhood Association will be provided prior to work outside allowed work hours. Said notice will include justification for work outside allowed work hours, beginning and end dates, and any information unique to the specific activities.

3.3 Post-Construction Activities

After major construction activities are complete, the following activities will be initiated and completed:

- Final site grading;
- Site mitigation plantings and landscaping;
- Removal of temporary site construction fencing and placement of final site fencing;

- Removal of erosion control devices;
- Removal of tree protection fencing;
- Demobilization of construction offices and contractor equipment;
- Restoration of offsite parking, staging and storage areas as necessary;
- Restoration of damaged streets to City of West Linn standards.

4.0 Site Management

4.1 Construction Staging and Stockpiling

Construction staging and stockpile areas will be located within designated disturbance areas as shown in Section 21, Figure 6.0 of the Land-Use Application. Several types of stockpiles are expected: general excavation material, aggregates, engineered backfill, and topsoil. Storage of stockpiled materials on site will reduce the need to haul materials off-site for storage and haul back on site later. Stockpiles will be managed to control dust and runoff.

As much as possible, the plan minimizes the space requirements for construction-related activities by compressing and consolidating lay-down and work areas, and avoiding impacts to significant trees.

4.2 Construction Waste Management

The Construction Contractor will dispose of all on-site waste. These materials may include concrete/rebar, dirt, rocks, asphalt and other materials from demolition of the existing facilities, as well as field office and on-site construction personnel related waste. Containers and layout will be included in the staging areas shown in Section 21, Figure 6.0 of the Land-Use drawing set.

4.3 Hazardous Material

Only materials, directly related to construction activities, will be permitted on site. These materials will include but not be limited to diesel fuel, hydraulic fluids, and paint, in consumer quantities allowed by regulations. Use, transport, and storage of any such materials will be minimized and quantities will not exceed consumer levels (intended for retail sale). On-site fuel transfer will be limited to designated construction staging areas and construction equipment will be stored in these staging areas overnight. Typically, the contractor will not store fuel, oil, or other hazardous materials on site, but rather will bring fuel to the site via maintenance vehicles on a daily basis.

4.4 Sanitation and Litter Facilities

The Contractor will be responsible for providing portable sanitation facilities for construction personnel for the duration of the construction project. The Contractor will also furnish and utilize suitable receptacles for waste and recyclables and ensure that all garbage is removed from the site on a weekly basis.

5.0 Construction Impacts

5.1 Noise

Construction-related noise will meet local noise ordinances for construction work.

5.2 Traffic

Construction traffic to and from the project site will ebb and flow throughout construction and will not be equally apportioned to the Mapleton Drive and Kenthorpe Way corridors depending upon any particular sequence of work. Regardless, access to private properties throughout the construction period will be maintained with few exceptions. When the need for temporary interruptions to normal access to private properties are identified, advance notice will be provided to affected property owners in accordance with the approved traffic control and management plan and communications plan (see Section 3.1, above).

Figure 1 summarizes the primary construction access routes for the project. As shown in the Figure, there are two primary access routes to the project site:

1. Pacific Highway (Highway 43) to Cedar Oak Dr. to River Road Dr. to S. Kenthorpe Way
2. Pacific Highway (Highway 43) to Mapleton Dr.

Figure 1: Primary Construction Access Routes

