

CITY OF LAKE OSWEGO

380 A Avenue
PO Box 369
Lake Oswego, OR 97034

503-675-3984
www.ci.oswego.or.us

COUNCIL REPORT

TO: Jack Hoffman, Mayor and Craig Dirksen, Mayor
Members of the Lake Oswego and Tigard City Councils
Alex D. McIntyre, City Manager and Liz Newton, Interim City Manager

FROM: Joel B. Komarek, Project Director – Lake Oswego-Tigard Water Partnership

SUBJECT: Lake Oswego/Tigard Water Supply Expansion Project – Implementation Update

DATE: November 9, 2011

ACTION

This study session provides the Technical Committee (TC) of the partner cities an opportunity to present to the Joint Councils:

1. A brief review of the objectives of the partnership;
2. A review of milestone accomplishments;
3. An update on program design and permitting activities as they relate to each facility;
4. A preview of key milestones for the next six months; and
5. A brief summary of public outreach activities completed and pending.

In addition, this study session provides an opportunity for the partner cities to engage their fellow Councilors in discussion of the overall program progress.

INTRODUCTION/BACKGROUND

Exploration of a possible partnership between Lake Oswego and Tigard and the benefits and costs of partnering on an expansion and upgrade of Lake Oswego's water supply system to supply both communities began in 2005. The interest in a partnership was driven by the following conditions:

- *Water demand* – Lake Oswego's water demands were regularly exceeding its reliable supply capacity during peak use periods.¹
- *Infrastructure age and condition* – Pumps, pipes, electrical and mechanical equipment comprising the backbone of the City's supply system are over 40-years old. Even with regular maintenance and refurbishment, these key components must eventually be replaced. Combined with the need to

¹ "Reliable capacity" is defined as that rate of flow that can be diverted, treated and conveyed to customers while the largest pump at either the river intake pump station or water treatment plant is inoperable due to mechanical or electrical failure.

increase reliable capacity, would dictate that obsolete equipment be replaced with new, larger pumps. This would in turn require larger mechanical and electrical equipment, which in turn would require larger buildings within which to house the larger equipment.

- *Structural defects in River Intake Pump Station* – During installation of new fish screens in 2002 at this facility, defective concrete in the foundation was discovered. Options to remediate these defects would reduce pumping capacity or would be prohibitively expensive. This condition is monitored annually to assess the rate and severity of continuing decay.
- *Water Quality/Water Treatment* – Between 2005 and 2007, the USGS conducted a comprehensive analysis of raw water quality in the Clackamas River basin. This study revealed persistent, detectable levels of pesticides and herbicides in the water. Samples of treated water effluent from an upstream drinking water plant detected these same contaminants, albeit at concentrations below regulatory limits. Modern treatment technologies have been shown to remove many of these contaminants. Agricultural sources of such contaminants are not expected to abate any time soon, and so adequate treatment is the primary barrier for public health protection.
- *Regulatory* – Pharmaceuticals and personal care products not removed in wastewater treatment plants and passing into raw water supplies through effluent streams are receiving national attention and of concern to EPA and drinking water providers alike. Modern treatment technologies like conventional treatment with ozone are effective at removing many of these contaminants from treated drinking water.
- *Timing* – Tigard's contract with Portland expires in 2016. Tigard has long desired to acquire ownership in a water supply system as a means to eliminate the burden of increasingly higher costs to purchase water from Portland. Ownership in a water system would also allow Tigard to charge for the cost to provide water to new development.
- *Opportunity* – Addressing Lake Oswego's immediate and long term water supply needs cannot be delayed indefinitely and the costs to correct the above noted deficiencies on its own will be untenable – today and tomorrow. Tigard wants ownership in a water system to control costs and create additional revenue streams. The opportunity for each community to meet their water supply needs is now.

The engineering and financial analysis, completed in 2007, concluded that relative to all other supply options considered, a partnership between Lake Oswego and Tigard would best meet each community's water supply objectives and save each tens of millions of dollars.

On August 6, 2008, the Mayors of Tigard and Lake Oswego executed an Intergovernmental Agreement (IGA), committing the cities to undertake, in good faith and with due diligence, upgrades and expansions of their respective water supply systems and complete the Initial Expansion² by 2016. The IGA established Lake Oswego as the Managing Partner, responsible to secure all necessary engineering and construction services and to acquire all necessary environmental permits and land use approvals to assure project completion no later than July 1, 2016.

Since that August 6, 2008, date the partner cities have met in joint council sessions several times and

² The IGA defines Initial Expansion as "The design, permitting and construction of new and expanded Supply Facilities...to provide 32 million gallons per day capacity by 2016 with the capability to further expand up to 38 million gallons per day...when it appears the water demands of the parties will exceed 32 mgd."

jointly toured the sites of each facility owned by Lake Oswego and which are scheduled for upgrades/expansion or replacement. The most recent joint council meeting occurred November 8, 2010.

Since August 2008, the Managing Partner and partner cities have accomplished the following major milestones:

- Retained a Program Management Team (PMT) comprised of consulting engineer firms whose staff act as extensions of cities' staff and facilitate overall management of this multi-year program.
- Commissioned a blue-ribbon panel of national water treatment and public health experts and convened a citizen's advisory panel to identify, evaluate and assist in the selection of a preferred water treatment technology for implementation as part of the planned upgrades to Lake Oswego's water treatment plant (WTP).
- Selected a preferred water treatment technology consisting of conventional treatment with Ozone.
- Completed a project definition phase which vetted and further refined preliminary facilities concepts developed during a prior engineering feasibility study³.
- Completed a Value Planning study performed by an independent team of engineers and construction professionals.
- Completed a Supply Facilities Capital Improvement Program (SFCIP) plan. As required by the IGA the SFCIP was adopted by the councils' of the partner cities in late 2010 and was incorporated into the IGA as an exhibit.
- Undertook and completed four, separate competitive qualifications-based selection processes to select engineering consulting firms to design each of four design packages for the program. These packages are:
 - Water treatment plant (WTP).
 - Supervisory control and data acquisition (SCADA).
 - Raw (untreated) and Finished (treated) water pipelines (RWP/FWP).
 - River intake pump station, Waluga Reservoir #2 and Bonita pump station (RIPS/WR2/BPS).
- Completed utility financial analyses necessary to inform rate setting actions taken by the partner cities to assure adequate funding for program activities.
- Conducted in excess of 100 meetings with neighborhood associations, property owners, city councils and state legislators representing the communities of Gladstone, West Linn, Lake Oswego, Tigard and un-incorporated Clackamas County.
- Received Conditional Use and Design Review approval for the planned new RIPS located in Gladstone.

PROGRAM DESIGN AND PERMITTING ACTIVITIES UPDATE

Facilities Design Overview

The preliminary design phase for each of the four design packages is underway and at various stages of development. As the WTP design contract was the first to be let, its level of development is further along

³ The "City of Lake Oswego and Tigard Water Service Area Joint Water Supply System Analysis" July, 2007 by Carollo Engineers ("Carollo Report").

relative to, for example, the WR2/BPS design contract which was the last to be let. WTP design has accelerated over the last two months in order to support development of the Conditional Use/Design Review (CUP/DR) application scheduled to be submitted to West Linn in January of next year. Architectural design of the RIPS was also accelerated to support the land use approval process undertaken and recently completed in the City of Gladstone. Preliminary design of the raw and finished water pipelines through the communities of Gladstone, West Linn, Lake Oswego and Clackamas County is underway and preferred alignments have been selected for those pipelines. Two alignment alternatives for the RWP crossing of the Willamette River continue being evaluated in an approach to mitigate risks that reflect the uncertainty of how West Linn will interpret its development code and city charter as these regulations relate to the siting and construction of water transmission pipelines. Apparently even when constructed using non-surface disturbing methods.⁴

Preliminary design for the WR2 and BPS facilities are underway and recently a design decision was made to provide dual pumping capabilities at the proposed new BPS. This decision eliminates the need for a future pump station and associated future land acquisition costs. Tigard is presently moving ahead with acquiring a site necessary for construction of the new BPS.

All components of the pilot plant (i.e., ballasted flocculation, ozone and filters) are now on site at the WTP and operational. Optimization of ballasted flocculation is underway and anticipated to be complete soon. Once optimization is achieved, the clarified water will be passed through the four difference filter configurations to assess the efficacy of various filter media and configurations.

Environmental Permitting

Environmental permitting for each facility varies in complexity relative to the presence or absence of sensitive resources, unique geographic or geologic features and jurisdictional setting. A Joint Permit Application (JPA) is being developed for all facilities to the extent such facilities cross or occupy lands that fall within the regulatory purview of federal and state agencies. Facilities crossing or occupying 'non-federal' jurisdictional lands fall under the regulatory purview of state or local authorities. Some facilities require review by multiple agencies. For example, while the 'use' relating to the RIPS facility has received land use approval in the City of Gladstone, the construction impacts and water withdrawals must be reviewed against federal and state environmental standards. In contrast, the RWP, whose construction currently may not trigger land use review in Gladstone or Clackamas County for upland locations, does trigger review by federal and state agencies for the river crossing. Currently, some environmental permit related work and detailed geotechnical/survey work is on hold pending further discussions with West Linn concerning their development code as it relates to the Hull to Mapleton RWP alignment. Except for this facility, all environmental permitting work is proceeding on schedule. A decision on a final RWP river crossing option to advance for permitting and land use will need to be made soon to avoid delay to the overall permitting schedule and to activities that extend therefrom. The JPA is scheduled for submittal in May 2012.

Land Use

⁴ The crossings of the Willamette River and Oswego Lake are proposed to be accomplished using Horizontal Directional Drilling (HDD) techniques. Except at the entry and exit points, pipeline depths below the surface will range from 0 feet to more than 140 feet.

The required neighborhood meeting relating to the WTP CUP/DR will occur on November 10, 2011. As noted previously, the land use approval process for the RIPS is complete. The City also recently received approval to consolidate the six current lots comprising the WTP property into a single lot of record. This will facilitate meeting the setback and lot coverage standards for the zone. Because only one single family dwelling is allowed per lot of record, West Linn conditioned approval of the lot consolidation on removal of one of the two homes remaining on the City's property. To save costs, the City will move to deconstruct both houses in the near future.

The CUP/DR application for the WTP is scheduled for submittal to West Linn in early January 2012, followed by applications for the RWP/FWP in West Linn in February (pending alignment decision). The application for the FWP located in Lake Oswego is scheduled for early December 2011. Applications for BPS and WR2 are scheduled for June and July, 2012, respectively.

Water Rights

The consolidated record resulting from the contested case hearings held in March 2010, have now been entered into the Court of Appeals. Briefing schedules have been set with first briefs due November 28th. A request by Petitioner WaterWatch of Oregon for an extension to the briefing due date is anticipated and we understand such requests are usually granted by the Court at least once. Extensions, if granted, usually provide an additional 30 to 60 days.

Property acquisition

Easements to accommodate construction of various facilities have been identified and work is underway to survey those easements precedent to preparing legal descriptions and exhibits that will be used for appraisal purposes. Efforts to secure the necessary number of waivers to restrictive covenants from WTP properties are ongoing but a successful outcome appears unlikely.

Key Events/Issues (next six months)

Over the next six months a wide variety of key events/issues are scheduled to conclude and/or be addressed. These include:

- Submittal of land use applications - WTP, RWP/FWP (West Linn, Lake Oswego, Gladstone/County).
- Completion of 30% design – WTP, RIPS, BPS, RWP/FWP.
- 30% cost estimate update – WTP, RIPS, FWP/RWP (pending alignment decision).
- Submittal of JPA.
- Maple Grove CC&R's.
- Deconstruction of two homes on WTP properties.
- Public hearings on WTP, FWP (West Linn/Lake Oswego) and potentially RWP (West Linn/Gladstone).
- Water rights – Initial briefings submitted by petitioner/respondents and perhaps responses to briefings made?
- Procurement approach to HDD contractors and long lead equipment determined.
- Specialized equipment selections made and early procurement underway.

- Mitigation requests from residents/businesses located adjacent to and along construction sites.

Schedule Update/Issues

The complexity of the various land use regulations and administrative procedures in each of the four different jurisdictions, and the duration of activities supporting the land use submittal process have extended beyond original timelines, thus causing compression to the overall schedule, particularly when constrained by a completion date that cannot move and that provides adequate time for unanticipated events and a 'proofing period' for the new system. This compression has consequences to resource allocations of the PMT, sponsor staff and cash flow. Further discussion on this topic can occur during the TC's presentation to the joint Councils.

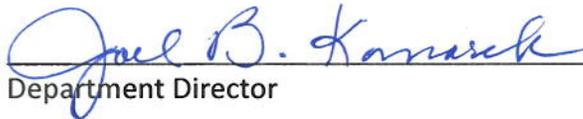
Financial Update

To date program expenditures total \$13.3M. Both cities anticipate entering the municipal bond market in 2012. Both cities are enacting rate adjustments to assure sufficient revenues for debt service related to the partnership capital costs and non-partnership capital and operating needs.

Public Outreach

Public outreach activities will be presented and discussed during the TC's presentation to the Joint Councils.

Reviewed by:


Department Director

_____ (if there is a financial impact)
Finance Director

_____ (if legal issues)
City Attorney

Alex D. McIntyre
City Manager