



CITY OF
West Linn

Memorandum

Date: November 30, 2011

To: John Kovash, Mayor
Members, West Linn City Council

From: Chris Jordan, City Manager 

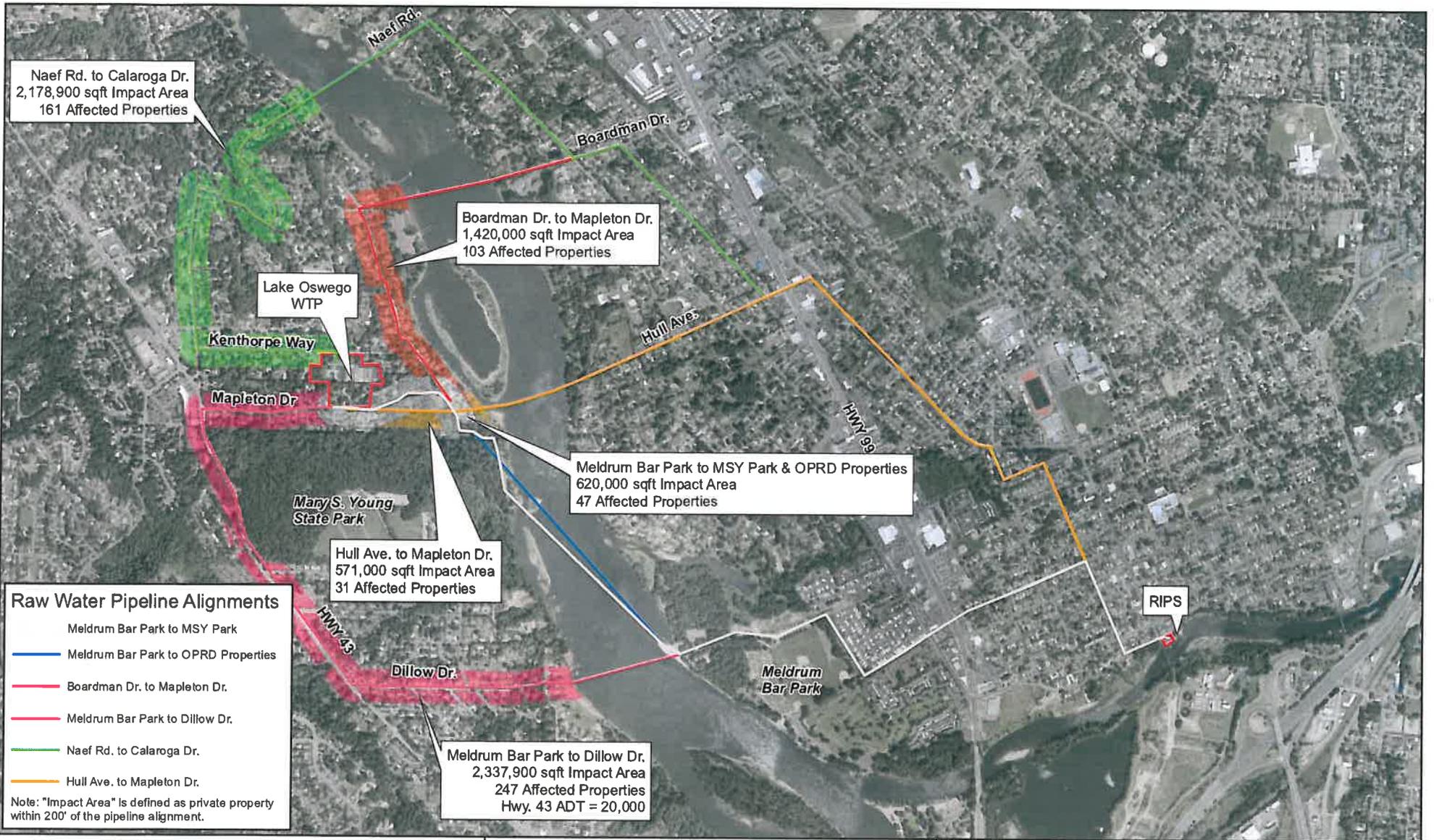
Subject: Lake Oswego-Tigard Water Partnership Information

At the Council's November 21 work session, the Mayor advised the Council that he met with Mayor Jack Hoffman of Lake Oswego and Mayor Hoffman had provided him with a packet of information regarding the Lake Oswego-Tigard water partnership. Mayor Kovash asked staff to get more copies of this information from Lake Oswego and distribute it to the Council.

We have now received this information from Lake Oswego staff and it is enclosed with this memorandum.

Please let me know if you have any questions.

Enclosure





Facts About the Partnership

Lake Oswego's water system is unreliable and costly to operate and maintain.

Lake Oswego's water system is more than 40-years old, cannot reliably meet the present day water needs of its residents, is technologically obsolete and expensive to operate. Replacing and upgrading this critical infrastructure will ensure that residents and businesses of Lake Oswego and Tigard will have the water they need into the future. The new system will be energy efficient, sized to meet each city's current and future water supply needs and capable of producing safe, pleasant tasting, and affordable drinking water for over 90,000 customers.

Tigard wants ownership in a secure, reliable drinking water supply.

For many years, Tigard purchased water on a contract basis and has considered many options to meet its future water supply needs. Tigard has concluded no other supply option provides equivalent long-term value when compared to a partnership with Lake Oswego.

Both communities are implementing regional water supply planning.

Lake Oswego and Tigard have been active members of the Regional Water Providers Consortium since 1996. Each City believes the public interest is best served by jointly planning and sharing in the development of Oregon's limited water resources. In fact, the state's draft Integrated Water Resources Strategy (IWRs) recommends as a "Key Action Item," the importance of incentivizing the "regionalization" of water and wastewater systems.

Conservation is the first, most important water source.

Both cities have comprehensive and successful water conservation programs, which help address short term supply issues. However, they will not make up for long term supply needs or address Lake Oswego's system reliability issues. Tigard and Lake Oswego still need to develop the additional water available under permits granted to Lake Oswego.

Safeguarding the region's natural resources is a priority.

Many environmental agencies and regulations exist to protect natural resources. The Partnership is working closely with federal, state and local agencies to ensure the program complies with all applicable regulations and the environment is protected

The partnership is good business, and needs local, regional, state and federal support to be successful.

Successfully executing this \$230 million dollar project will require the support of our agency partners. Lake Oswego and Tigard have committed to spending millions of dollars to deliver this complex, multi-phase project by July 2016. Water right extensions, environmental and land use permits must be secured before construction can commence. This schedule requires the partners to proceed with design to support the permit acquisition effort.



Project Overview

In August 2008, the cities of Lake Oswego and Tigard formally endorsed a partnership agreement for sharing drinking water resources and costs. The Lake Oswego Tigard Partnership represents an important step forward for cooperative and regional, as opposed to purely local, water supply planning. This regional approach will help ensure that the more than 90,000 residents of both cities¹ will continue to have a safe, affordable, and sustainable supply of drinking water.

Lake Oswego currently withdraws water from the Clackamas River in Gladstone as it has done for over 40 years. The partnership project will upgrade, upsize, and expand five existing facilities and pipelines from the water treatment plant in West Linn, to the Waluga reservoir in the western portion of Lake Oswego and the Bonita pump station near I-5 in Tigard (see map on reverse).

Under the partnership agreement, the City of Lake Oswego will manage and build the water system improvements. An Oversight Committee, of representatives from Lake Oswego and Tigard City Councils, provides leadership and guidance.

- ◆ It would cost Lake Oswego \$78M more to address system issues alone.
- ◆ Partnering with Lake Oswego is the lowest cost of four alternatives examined by Tigard.

The Partnership will save customers in Lake Oswego millions of dollars by sharing water system improvement costs with Tigard, while customers in Tigard will save money by lowering future rate increases needed to purchase water from other suppliers.

Capital costs to construct new facilities will be split according to each city's share of total capacity. Wherever existing facilities are upgraded/upsized and continue in use, each city will pay for their proportionate share of added capacity. Program costs are currently estimated at \$230 million. Cost allocations between Lake Oswego and Tigard are 46.5% and 53.5%, respectively. Revenue bonds issued separately by each city will pay for the improvements. These bonds will be repaid with revenues from the sale of water to residents and businesses.

The project team estimates that over 1500 jobs will be created or sustained over the 3 year project. Job categories include manufacturing; heavy equipment sales and rentals; engineering; building trades to include masons, carpenters, electricians, and welders; heavy equipment operators; scientists; surveyors; geologists; food service; and rental housing.

¹The Tigard Water Service Area includes Durham, King City, and nearby unincorporated areas of Washington County.

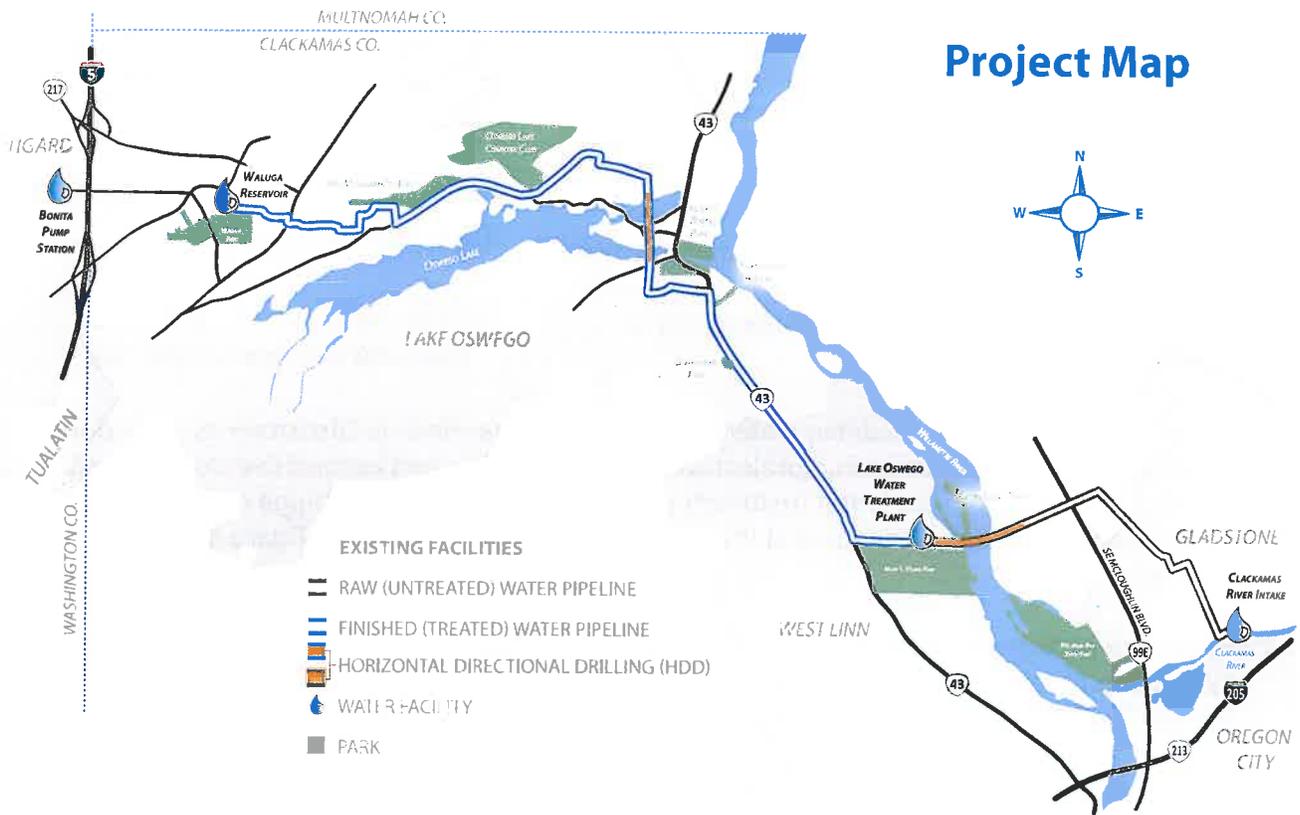
We need people to cooperate and look to the future, and that is exactly what Lake Oswego and Tigard are doing.

—Dwight French,
Oregon State Water Resources Department



Project and Water Service Area Maps

Project Map



Water Service Areas



Lake Oswego

Population: 37,000
Connections: 13,000
Serves five wholesale customers

Tigard

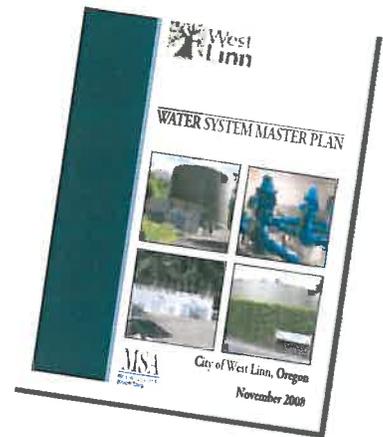
Population: 55,000
Connections: 22,000
Serves Tigard Water District,
King City, and Durham



Benefits for West Linn

West Linn's Water Supply

- ◆ Oregon City and West Linn jointly own South Fork Water Board (serves 54,000 people).
- ◆ Drinking water source: Clackamas River
- ◆ Treatment plant located in Oregon City in the Park Place Neighborhood. (Recently extensively upgraded and expanded).
- ◆ Water delivered through a 24-inch transmission main suspended on the I-205 Bridge.



Benefits of Partnership

- ✓ Lake Oswego's water treatment plant serves as West Linn's sole emergency and backup water source.
- ✓ The water treatment plant cannot deliver emergency supply year-round unless it is expanded through the partnership with Tigard.
- ✓ West Linn's Water Master Plan (2008) explains West Linn does not currently have adequate storage to meet system-wide needs under emergency conditions.
- ✓ Improving the intertie with Lake Oswego is identified as the least expensive option to meet storage supply needs.
- ✓ West Linn ratepayers would save millions of dollars by avoiding construction of a new 8.4 million gallon reservoir.
- ✓ A larger underground reservoir for treated water (a clearwell) at the plant will allow water to be fully treated before it leaves the treatment plant – a key to providing high quality potable water to West Linn residents when needed.

West Linn Water System Master Plan (2008)
Table 6-3 System-Wide Performance Requirement Summary

Year	MDD (mg) [1]	Fire Flow (mg) [2]	Total Supply Need (mg) [3]=[1]+[2]	Normal Supply Capacity (mg) [4]	Emergency Supply Capacity ² (mg) [5]	Normal Supply Deficit (mg) [6]=[3]-[4]	Emergency Supply Deficit (mg) [7]=[3]-[5]
Current	8.1	0.5	8.6	9.5	0.0	(0.9)	8.6
2015	8.6	0.5	9.1	9.5	0.0	(0.4)	9.1
2030	9.7	0.5	10.2	9.5	0.0	0.7	10.2
Saturation Development	10.0	0.5	10.5	9.5	0.0	1.0	10.5

Notes: 2. Emergency supply capacity is the total available capacity of the City's Lake Oswego Emergency Intertie Pump Station, assumed to be 0.0 under maximum daily demand conditions.

Learn More

South Fork Water Board: <http://www.sfwb.org>

Information about the emergency water intertie with Lake Oswego:

<http://westlinnoregon.gov/publicworks/information-about-emergency-water-intertie-lake-oswego-water-system>



Lake Oswego Tigard Water Partnership Meetings Held in West Linn

2010

- February 6 West Linn City Council presentation
- February 12 League of West Linn Neighbors
- April 5 West Linn City Council presentation on Partnership
- April 13 Robinwood NA, project overview
- May 4 West Linn, Gladstone, Tigard, Lake Oswego City Manager's meeting presentation
- June 8 Robinwood NA
- June 24 Water Treatment process recommendation Open House
- July 13 Robinwood NA
- July 24 Water Treatment Plant Open House
- August 4 Maple Grove Plat property owners, Ice Cream Social
- August 4 – October 8 Maple Grove Subdivision Property Owner Online Survey
- August 10 Robinwood NA
- September 14 Robinwood NA
- September 15 West Linn Utility Advisory Board presentation
- October 12 Robinwood NA
- October 27 First Plan meeting
- November 9 Robinwood NA
- December 1 Second Plan meeting
- December 1 – January 12 Plan Online Survey
- December 11 Robinwood Tour of Wilsonville Water Treatment Plant
- December 14 Robinwood NA

2011

- January 11 *"Cancelled"* Robinwood NA (Maple Grove residents)
- February 8 Robinwood NA
- March 8 Robinwood NA
- March 29 Robinwood NA Special Meeting
- April 12 Robinwood NA
- April 16 Lake Oswego and Tigard Mayors meeting with Robinwood neighbors
- May 10 Robinwood NA. Robinwood voted to create an ad hoc committee to make recommendations to Neighborhood regarding improvements to the Plan.
- June 14 Robinwood NA; Update on GNP
- June 20 Bolton Neighborhood Association (NA voted to approve a "declaration of opposition")
- July 12 Update on GNP; Robinwood formed Great Neighbor Committee
- August 9 Robinwood NA; Update on GNP
- August 10 Willamette Neighborhood Association
- August 10 Oregon State Parks Department (feasibility of raw water line alternatives)
- August 24 "Great Neighbor Committee" meeting; Committee presented preliminary list of requests
- August 25 Parks and Recreation Advisory Board
- September 7 West Linn Farmers Market Partnership Booth
- September 27 Sunset Neighborhood Association
- October 11 Robinwood Neighborhood Meeting; Great Neighbor Committee to hold "charette" on list of desired improvements.
- October 17 Bolton Neighborhood Association
- October 18 Hidden Springs Neighborhood Association
- October 27 Water Treatment Plant Design Open House
- November 10 Required Land Use public meeting

Wetlands and Endangered /Threatened Species

Improvements to key Partnership facilities will trigger federal, state and local permit requirements. Rebuilding the water intake on the Clackamas River and laying a new pipeline under the Willamette River and through wetlands will require the Partnership to obtain a Section 404 permit from the U.S. Army Corps of Engineers. Section 7 of the Endangered Species Act requires the U.S. Army Corps of Engineers to consult with NMFS and USFWS on whether issuing a permit to the Partnership will affect any threatened or endangered animals or plants. Although the U.S. Army Corps of Engineers will look only at the impacts of construction, NMFS and USFWS must review all impacts that would result from the issuing of a permit, including an increase in water withdrawal from the Clackamas River.

A comprehensive Biological Assessment is currently being developed. The completed Assessment will be submitted to USFWS and NMFS by the Corps of Engineers for agency consideration in Spring 2012. In response to the biological assessment, USFWS and NMFS will complete a Biological Opinion that documents the opinions of both agencies as to whether issuing the permit will likely jeopardize the continued existence of listed species or result in unacceptable loss of critical habitat. If the new intake and/or increased withdrawals are found to adversely affect endangered species, the Biological Opinion will propose mitigation measures to protect listed species. The Biological Opinion is expected to be issued by the federal agencies in 2012. The timing of this opinion is critical to the Partnership's deadline to deliver water to its nearly 100,000 consumers in a timely manner.

Avoiding, Minimizing and Mitigating Impacts

This team will also develop strategies to avoid, minimize and mitigate possible impacts. Natural resource protection plays a pivotal role in decisions about potential pipeline routes and facility siting alternatives. Whenever practical, impacts will be avoided. If the impact cannot be avoided entirely, steps will be taken to minimize the impact. Mitigation measures, if needed, will be developed during the project's design phase, in consultation with agencies.

Lake Oswego's Municipal Water Permits

Background: The City of Lake Oswego holds surface water rights that authorize the use of water from the Clackamas and Willamette Rivers. Lake Oswego's Clackamas River water rights provide enough water to meet Lake Oswego's needs for the foreseeable future and Tigard's needs for at least the next 20 years.

Project Schedule



Lake Oswego's Municipal Water Permits (continued)

Permit Extension Final Order: The City of Lake Oswego is extremely pleased with the OWRD's approval to issue a Final Order (FO) for an extension of time to develop additional water supplies from the Clackamas River.

The FO reflects the conclusions reached in August 2010 by an impartial Administrative Law Judge (ALJ). The ALJ received testimony from opponents to the City's extension request in a contested case hearing conducted March 2010 and held that the City had satisfied all public interest standards by which its extension request was reviewed and approved by the Department.

This decision represents a significant victory for citizens of this state who care about balancing the water supply needs of the environment with those of communities who depend upon adequate supplies of water to support public health, safety and jobs. Unfortunately, this victory came at significant cost to taxpayers, despite early efforts by the City and the Department to settle this matter with opponents outside of the Courts.

Conditions for Protecting Fish: Lake Oswego has worked closely with OWRD and the Oregon Department of Fish and Wildlife (ODFW) throughout the permit extension process, to develop conditions regarding the use of the undeveloped portions of its permits. These conditions will ensure that the development and use of these water rights **will not harm native fish populations**. Conditions include mandatory annual meetings between Lake Oswego and ODFW to devise a strategy to maximize fishery benefits. Pursuant to the Proposed Order, **ODFW will have final approval** over any agreement reached during this meeting. In addition, between the first Monday in September through June 30, if stream flows do not meet target flow levels, the total amount of the undeveloped portion of the permits that can legally be diverted shall be reduced by Lake Oswego and Tigard in proportion to the amount by which the flows miss the target.

These conditions were carefully developed in an iterative process between OWRD and ODFW to ensure that the Lake Oswego Tigard Water Partnership can provide safe, clean, affordable, and sustainable supplies of drinking water to all citizens within its service area.

The review process for these permits represents successful cooperation between Lake Oswego and Tigard, the state regulatory agencies responsible for protecting water resources and the Department of Justice who defended the Proposed Final Orders (PFOs) to ensure the protection of native fish populations.

The Endangered Species Act (ESA) provides protection for threatened and endangered species. These fish species in the project area have ESA status:



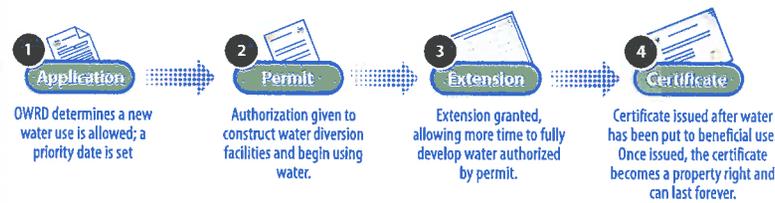
Lake Oswego's Municipal Water Permits *(continued)*

The water rights involved in this permit extension process are not new water rights. These permits have been held by Lake Oswego for many years. The permit extension process merely allows the Lake Oswego and Tigard more time to complete construction and develop the water rights to serve the needs of their communities. The ability of municipalities to extend the time available to develop water rights is the key to engaging in long-term planning to meet the needs of growing populations.

Under Oregon law, any applicant seeking an extension of time for a municipal water use permit must submit a completed application, that application must show that:

- The time requested to fully develop the water right is reasonable;
- That the applicant can apply the water to beneficial use within the time period requested in the extension;
- There is good cause to approve the extension; and
- The extension will either not affect the persistence of listed fish, or the permit is so conditioned that use of the additional water will not affect the persistence of listed fish.

Water Rights Development Process



The Oregon Water Resources Department (OWRD) closely examined the applications submitted to it by Lake Oswego and determined that they met these criteria. OWRD's review was affirmed in August 2010 after an in-depth hearing before a state Administrative Law Judge (ALJ). In April 2011, the OWRD issued a Final Order approving Lake Oswego's request for a time extension.

Commitment to Working with the Public

As the managing partner, the City of Lake Oswego secures and manages all design, permitting and construction efforts for the project. In this role, the City is committed to working with all facility neighbors and the traveling public along the system's alignment to reduce impacts to the greatest extent possible.

The Partnership communications staff is actively working with our community partners and residents in the cities of Gladstone, West Linn, Lake Oswego, Tigard, and Clackamas County to understand their unique concerns and needs. Our approach is to address these unique concerns and needs through the development of Good Neighbor Agreements. These agreements will outline the Partnership's commitment to being a good neighbor now, during construction and into the future.

Cooperation with Permitting Agencies

Sixteen independent agencies are involved in permitting for the Lake Oswego Tigard Water Partnership project.

Many of the agencies have overlapping responsibilities for protecting water quality, habitat and wildlife. Among these various permitting entities and regulations, the federal and state agencies that oversee the Endangered Species Act and the Clean Water Act, along with Oregon's water rights law, have significant influence on the development of the Partnership project.

Considerable coordination is required to bring this project through the permitting process and Lake Oswego has hired the best professionals to help them do it. The Partnership team is ready to work with permitting agencies at all levels to deliver the best possible project on time and within budget.

Permitting Agencies

Federal



State

- Oregon Department of Agriculture
- Oregon Department of Environmental Quality
- Oregon Department of Fish and Wildlife
- Oregon Department of State Lands
- Oregon State Marine Board
- Oregon Water Resources Department
- State Historic Preservation Office

Local

- City of Gladstone
- City of Lake Oswego
- City of Tigard
- City of West Linn
- Clackamas County



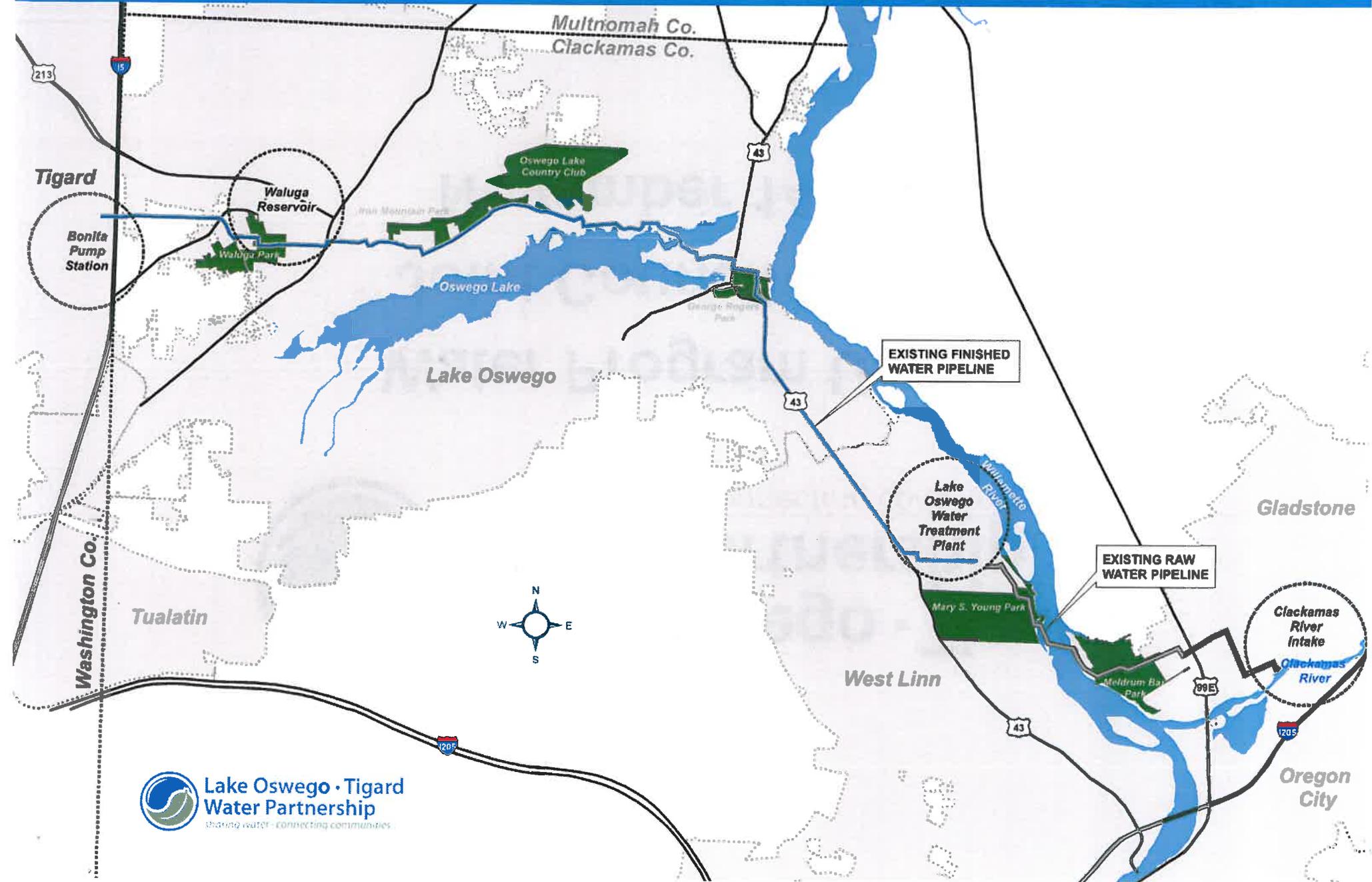
Lake Oswego · Tigard Water Partnership

sharing water · connecting communities

Water Program Update Joint Council Meeting November 14, 2011



Water Program Overview



River Intake Pump Station (RIPS)



RIPS

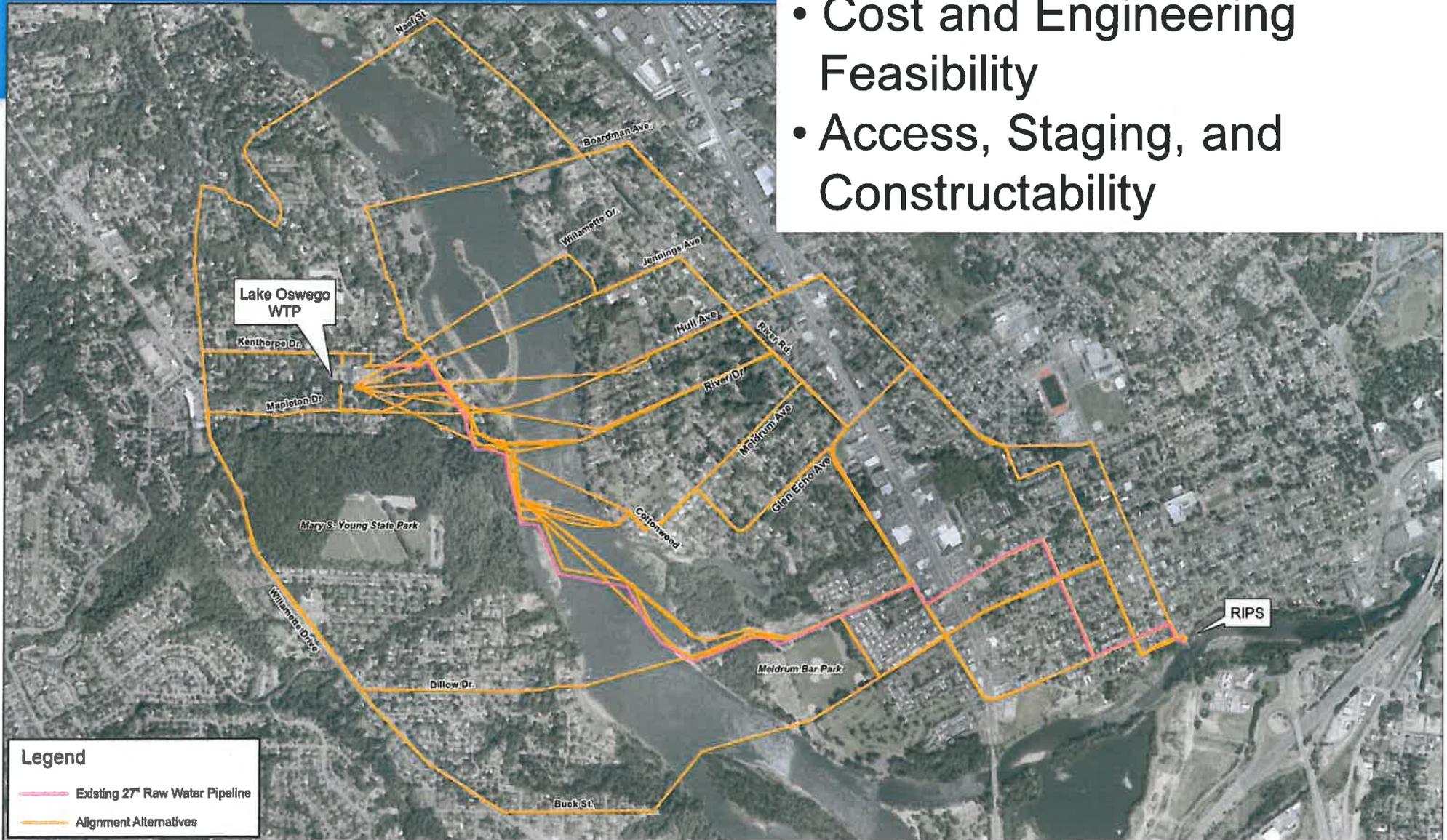
- Land use permitting complete
- Environmental permitting in progress
- Design getting started



Raw Water Pipeline

Fatal Flaw Screening

- Environmental Permitting
- Cost and Engineering Feasibility
- Access, Staging, and Constructability



Raw Water Pipeline

Preferred Alternatives

- Cost Effective
- Low Impact
- Adequate Access and Staging



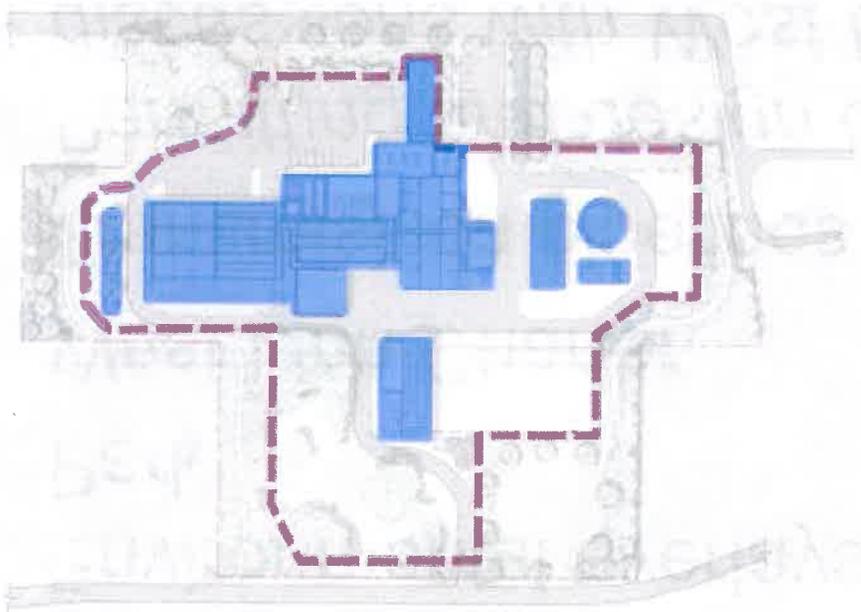
Raw Water Pipeline

Considerations:

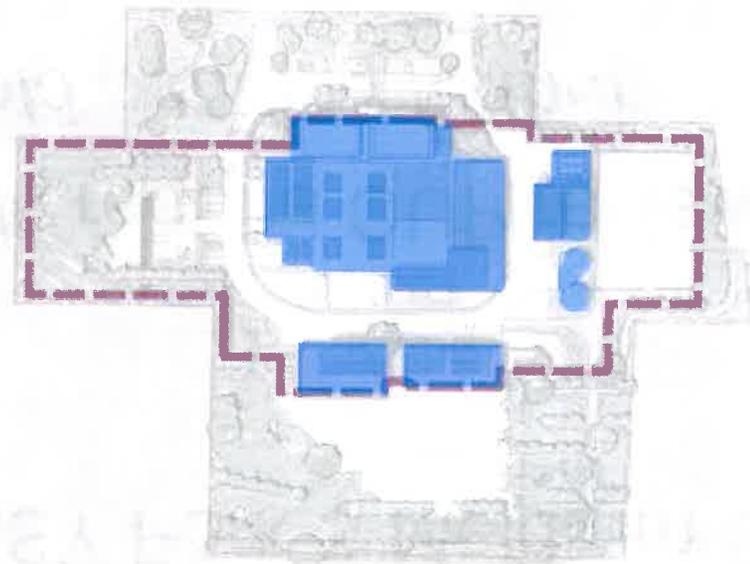
- Environmental overlays – MSY Park & Meldrum Bar Park
- West Linn Charter
- Transmission pipelines in WL require CUP review
- *Permitting and design on hold pending further discussions with West Linn*



Water Treatment Plant



PRELIMINARY SITE PLAN
12/10/10



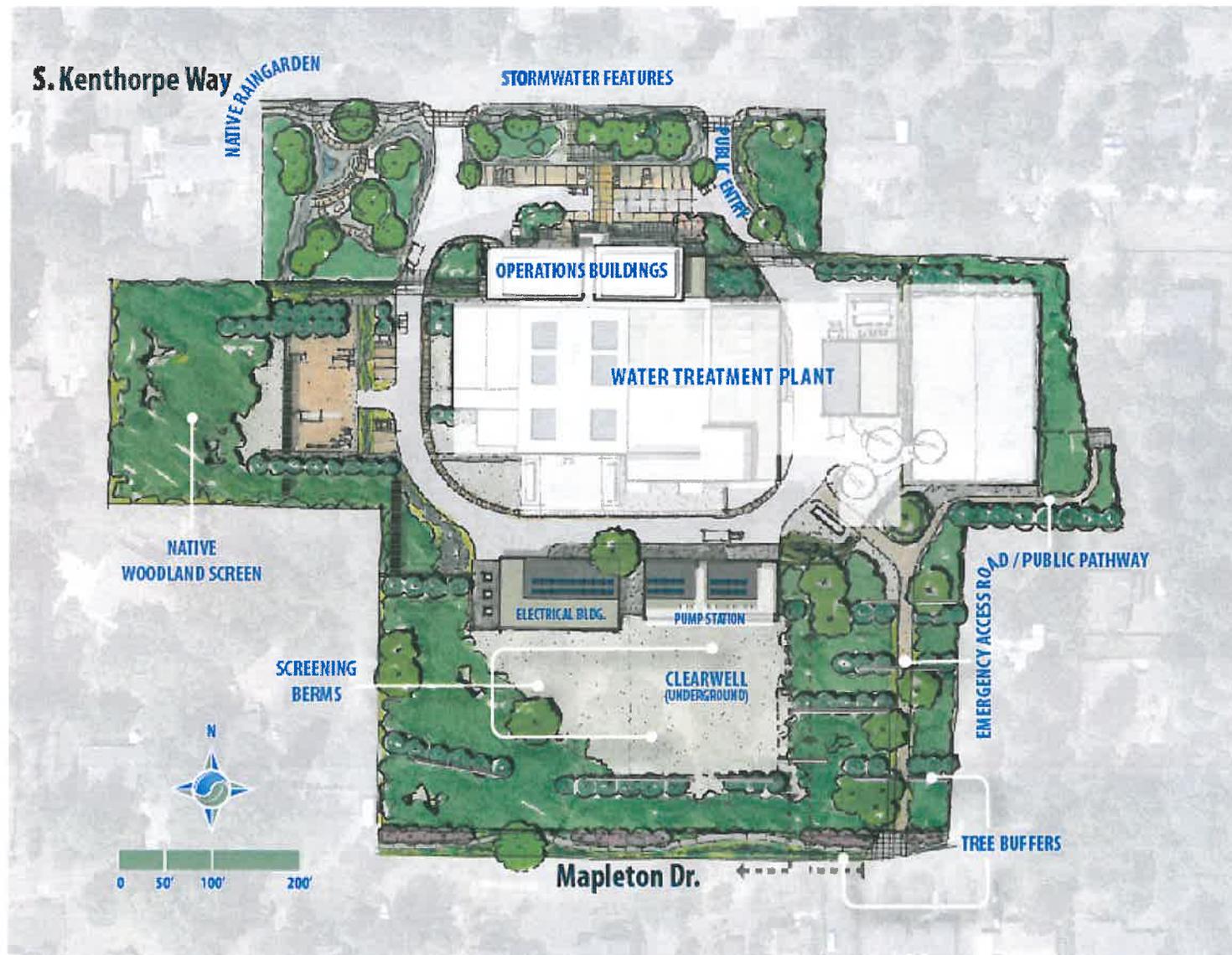
CURRENT SITE PLAN
10/27/11

LEGEND

-  SECURE PLANT FOOTPRINT
-  BUILDING FOOTPRINTS



Water Treatment Plant



Water Treatment Plant – Mapleton Trail / Emergency Access



Water Treatment Plant – Kenthorpe Operations Entrance



Water Treatment Plant – North Elevation



Water Treatment Plant



VIEW LOOKING SOUTH AT MAIN PUBLIC ENTRY



VIEW LOOKING WEST AT MAIN PUBLIC ENTRY

- Northwest Contemporary Aesthetic
- Occupied, non-process building as 'Front Door' to the plant while Screening industrial process structures from the street.
- Warm / rich color pallet (*wood used to define entry, residential scale material, similar to existing homes*)
- High quality, durable materials w/ *minimal maintenance.*
- Horizontally expressive building forms (*relates to general neighborhood building forms*)



Water Treatment Plant – High Service Pump Station



BIRDS EYE VIEW OF SOUTH EDGE OF PLANT SHOWING GARDEN ROOFS



SOUTH EDGE BUILDING WALL ARTICULATION STUDY

- Submit CUP/DR application Jan. 2012
- 30% design & cost update due Mar. 2012

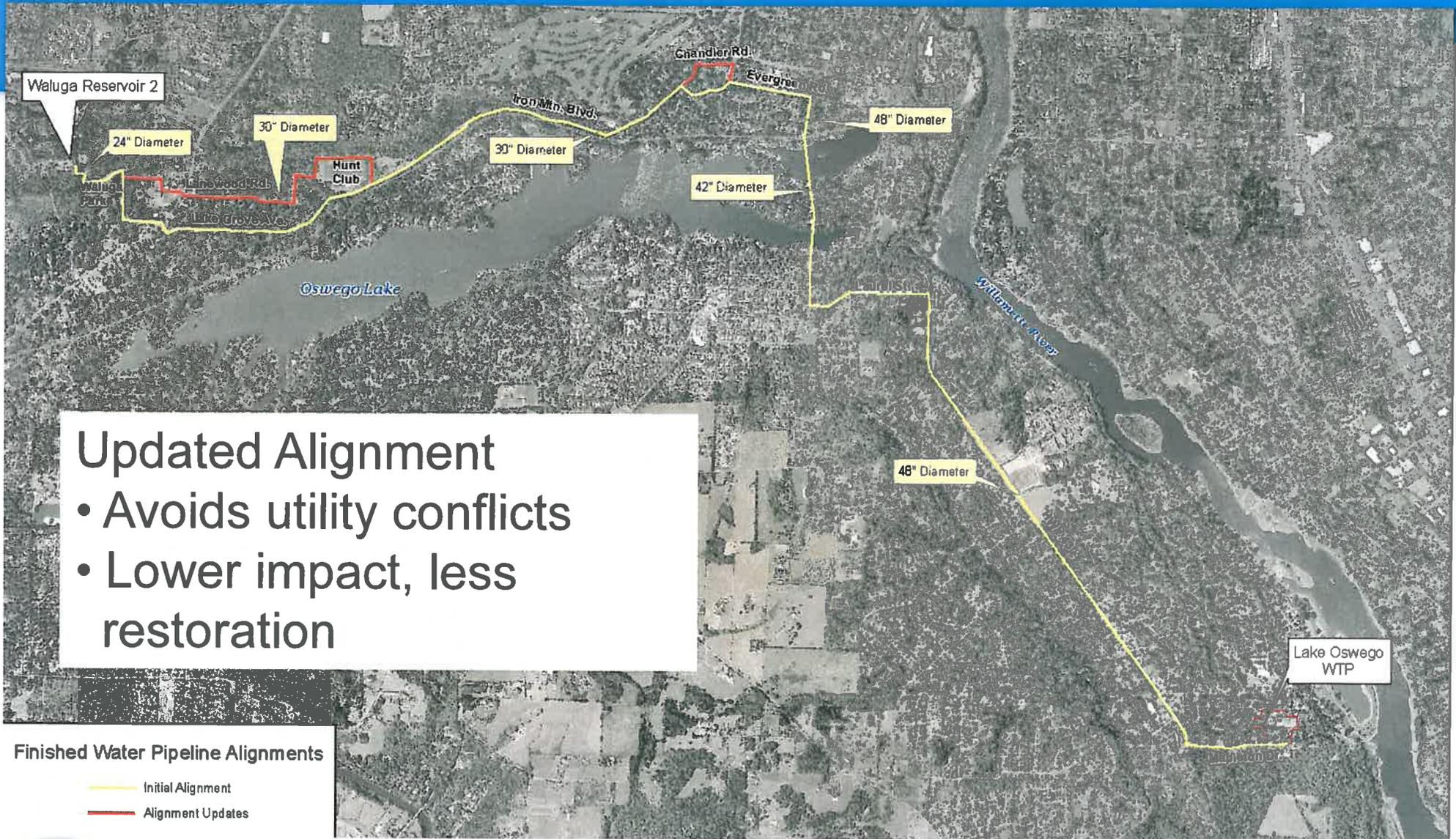


Water Treatment Plant

- Preliminary Design Considerations:
 - Plant capacity
 - Seismic performance
 - Geologic conditions / foundation design
 - Early procurement to support design
 - Backup power options
 - Schedule



Finished Water Pipeline



Updated Alignment

- Avoids utility conflicts
- Lower impact, less restoration

Finished Water Pipeline Alignments

- Initial Alignment
- Alignment Updates



Finished Water Pipeline

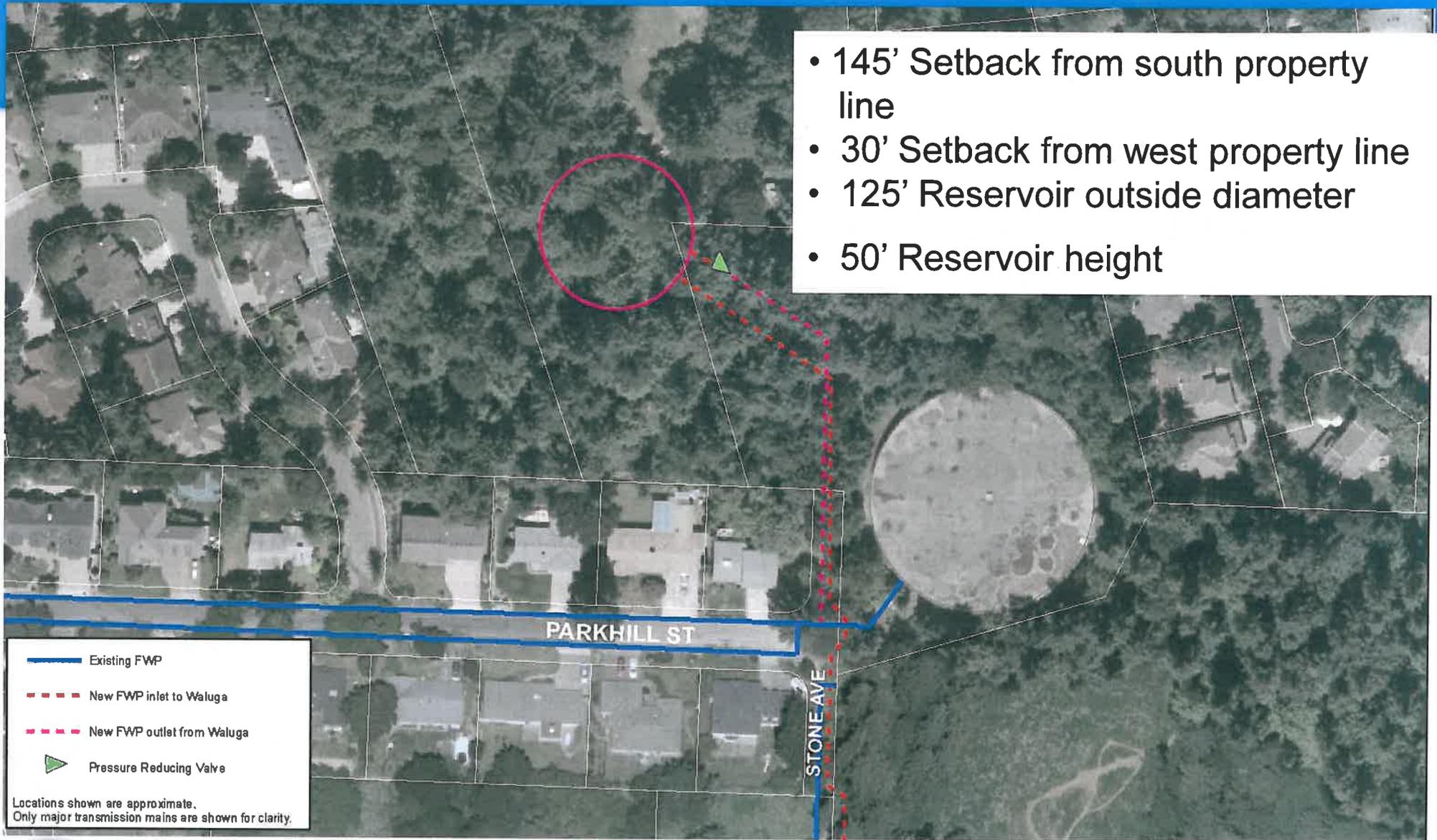
Status:

- LO land use submittal in December
- Off-site mitigation in Iron Mtn property for impacts in Hunt Club
- Easement acquisition for affected private properties, Hunt Club, Lake Grove Elementary
- Preliminary 30 percent design completion
January 2012



Waluga Reservoir 2 - Recommended

- 145' Setback from south property line
- 30' Setback from west property line
- 125' Reservoir outside diameter
- 50' Reservoir height



Waluga Reservoir 2

- Submit land use application July 2012
- 30% design and cost update due July 2012
- Construction Notice to Proceed moved to July 2014 to mitigate cash flow compression



Bonita Pump Station – Existing and Proposed

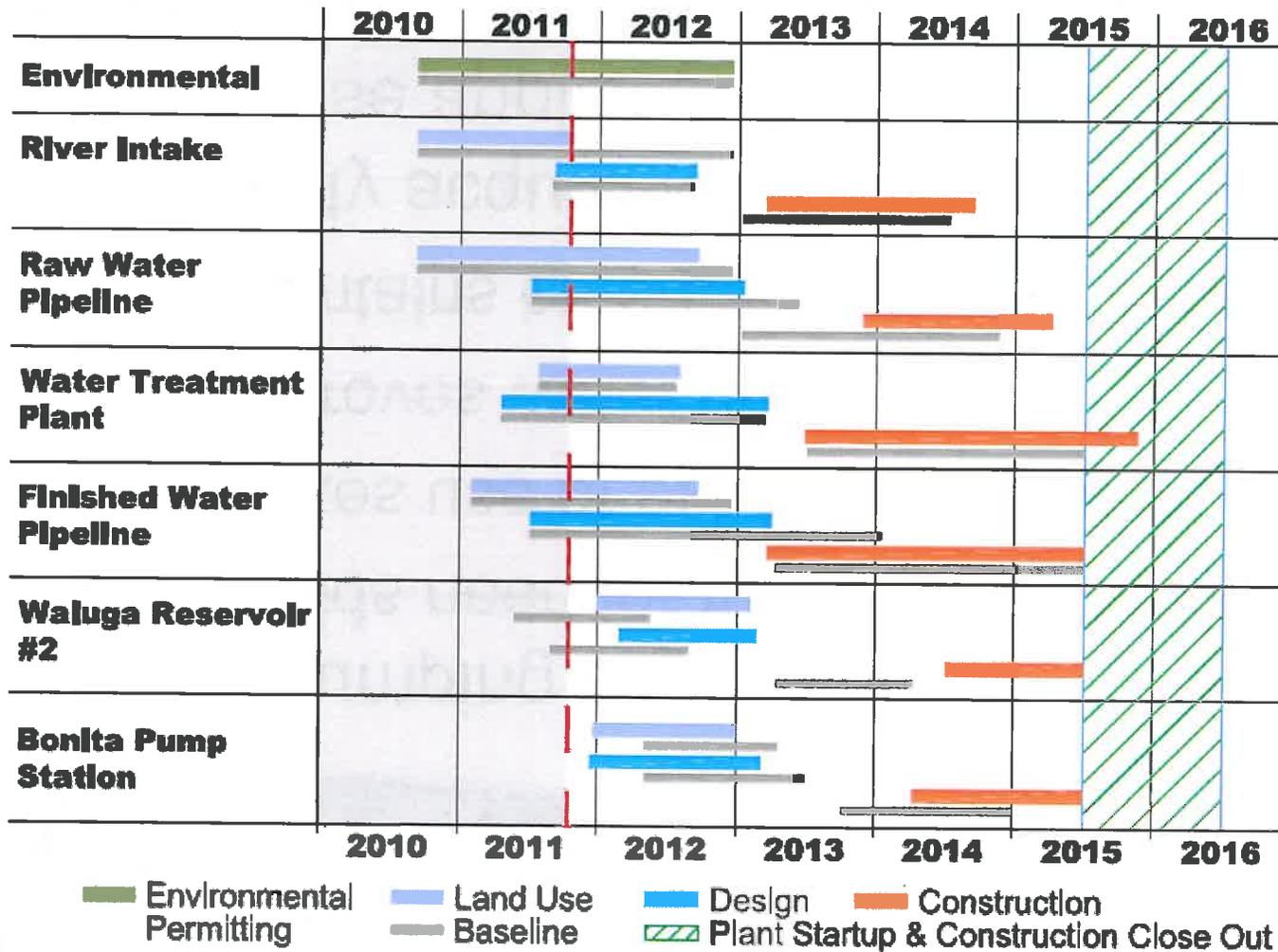


Bonita Pump Station

- Dual pumping capability
 - Avoids need for future pump station
 - Makes use of existing pipelines
 - Improves water quality
 - Maintains emergency supply connections
- Property acquisition in progress
- Land use application due June 2012
- 30% design and cost update due June 2012
- Construction NTP moved to April 2014 to mitigate cash flow compression



Schedule Update



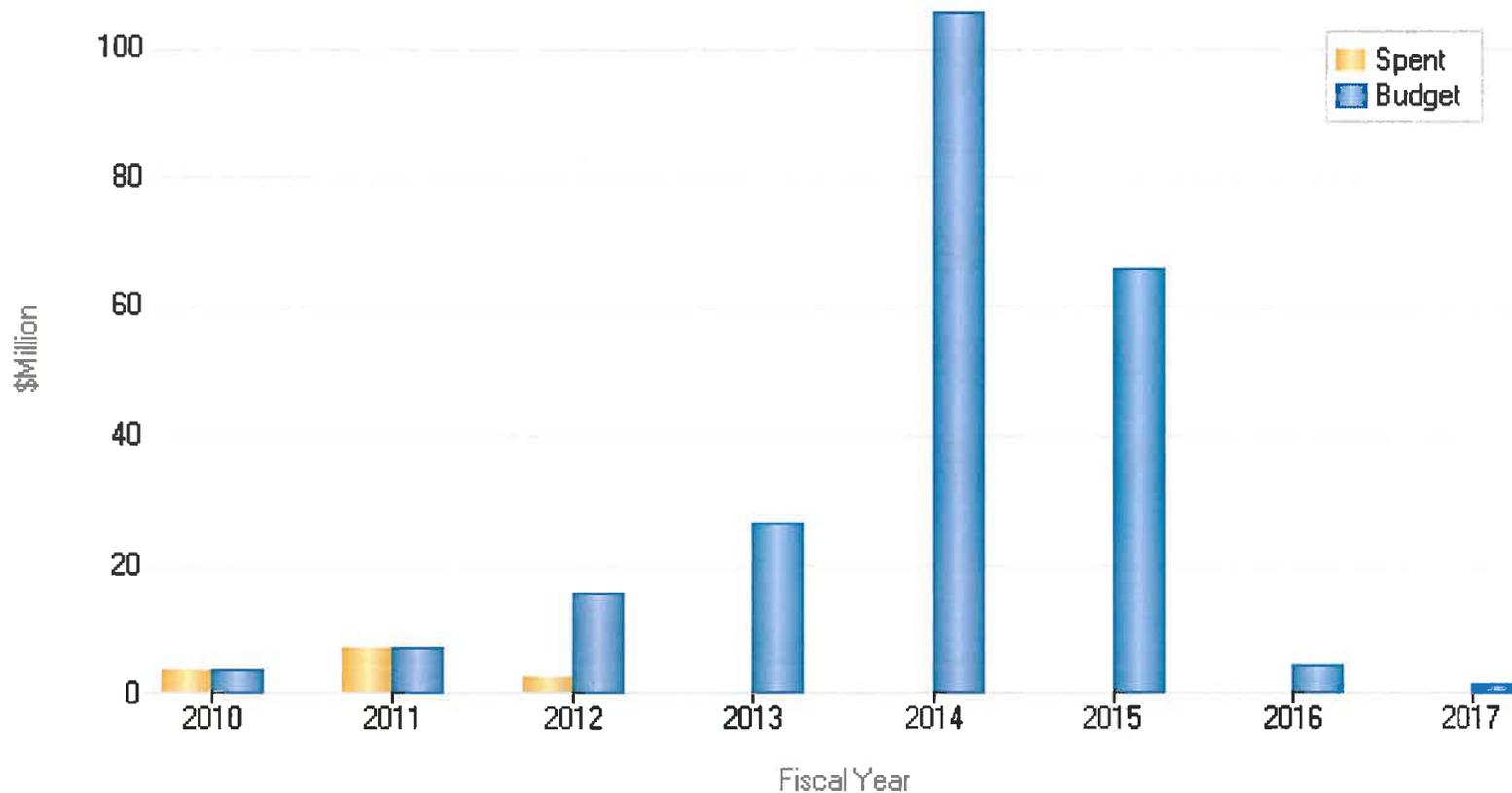
Program on schedule pending...

- Resolution of West Linn land use permitting for raw water pipeline
- Environmental permit issuance
- Conclusion of water rights contested case



Financial Status Update

- Current program expenditures total \$13.3M (5.8% of the total current program budget)



Key Events / Issues Next 6 Months

- Selection of RWP alignment (critical path)
- Easement and property rights acquisition
 - RWP alignment/WL land use may drive priority acquisitions
- 30% design and cost updates due March and July 2012
- Procurement of HDD contractor
- JPA submittal
- Water rights appeals process
- Bond sales – Tigard and LO



Public Outreach 2011 Priorities

- Keep policymakers in four communities oriented/informed
- Build deeper understanding and broad community ownership
- Integrate public outreach with land use permitting and facility design work



Target Audiences and Methods

- Target audiences:
 - Policymakers
 - Community leaders
 - Facility neighbors
 - Water customers
- Keep policymakers informed
 - Monthly Oversight Committee
 - Wilsonville Plant tour earlier this year
 - Pilot Plant tour this month
 - Joint Councils meeting



Public Outreach and Communications

Build deeper understanding and broad community support

- Community events (Farmers' Markets, Balloon Festival, Chautauqua in Gladstone)
- Topics: Ozone treatment, Clackamas River watershed stewardship, facility condition
- Neighborhoods, opinion leaders, senators, representatives, Metro councilors, county commissioners



Public Outreach and Communications

Integrate public outreach with land use permitting and design

- River Intake Pump Station
- Raw Water Pipeline
- Water Treatment Plant
- Finished Water Pipeline



Water Treatment Plant Noise Testing Begins Today



It's Your Turn...

Questions?
Comments?



For more information



Lake Oswego · Tigard Water Partnership

sharing water · connecting communities

lotigardwater.org · 503-697-6502

