



Water System

Page	Project	Project Name	Projected 2010-11	2011–12	2012–13	2013–14	2014–15	2015–16	Projected Totals
47	96003	Water Meter Replacement Program	0	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,000,000
48	96008	Water Main Line Oversizing	\$100,000	\$325,000	\$75,000	\$150,000	\$150,000	\$150,000	\$950,000
49	96010	Aquifer Storage & Recovery Well #3	0	\$265,000	\$2,421,000	\$50,000	0	0	\$2,736,000
50	96013	550' Zone Improvements (10 MG Transfer Pump Station Upgrade)	\$4,157,230	\$732,866	0	0	0	0	\$4,890,096
51	96018	Lake Oswego–Tigard Water Partnership	\$5,456,960	\$8,238,000	\$14,471,000	\$57,323,000	\$34,751,000	0	\$120,239,960
52	96023	Sherwood Partnership	0	\$4,333,333	0	0	0	0	\$4,333,333
53	96024	Water Line Replacement Program	0	\$50,000	\$498,800	0	0	0	\$548,800
54	96027	New Pump Station to Reservoir #2	0	\$50,000	\$226,000	\$962,666	\$481,334	0	\$1,720,000
55	96028	Fire Hydrant Replacement Program	0	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
Total Funded			\$9,714,190	\$14,294,199	\$17,991,800	\$58,785,666	\$35,682,334	\$450,000	\$136,918,189

HOW WATER PROJECTS ARE FUNDED

Funding comes from the Water and Water System Development Charge (SDC) funds. The revenues for these funds are provided by residential and commercial residents through water utility charges.

Water Meter Replacement Program

Replacement of large and small water meters that are deemed defective or at the end of their useful service life (over 20 years).



Water Meter Replacement Program				Location To Be Determined		Funding Status Fully Funded		Project Manager(s) John Goodrich <i>Public Works</i>	
	Actual 2009–10	Revised 2010–11	Projected 2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	PROJECTED TOTAL
EXTERNAL EXPENSES									
Construction	0	0	0	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,000,000
TOTAL	0	0	0	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,000,000
INTERNAL EXPENSES									
Project Management	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0
TOTAL PROJECT EXPENSE	0	0	0	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,000,000
REVENUE FUNDING SOURCE									
Water CIP Fund	0	0	0	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,000,000
TOTAL	0	0	0	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,000,000
OTHER REVENUE SOURCE									
TOTAL	0	0	0	0	0	0	0	0	0

Water Main Line Oversizing

The city may elect to upsize water transmission lines in conjunction with new development. Lines earmarked for upscaling are identified in the Water Distribution System Hydraulic Study.



Water Main Line Oversizing		Location To Be Determined		Funding Status Fully Funded		Project Manager(s) Rob Murchison Public Works			
	Actual 2009 – 10	Revised 2010 – 11	Projected 2010 – 11	2011 – 12	2012 – 13	2013 – 14	2014 – 15	2015 – 16	PROJECTED TOTAL
EXTERNAL EXPENSES									
Construction	0	\$100,000	\$100,000	\$325,000	\$75,000	\$150,000	\$150,000	\$150,000	\$950,000
TOTAL	0	\$100,000	\$100,000	\$325,000	\$75,000	\$150,000	\$150,000	\$150,000	\$950,000
INTERNAL EXPENSES									
Project Management	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0
TOTAL PROJECT EXPENSE	0	\$100,000	\$100,000	\$325,000	\$75,000	\$150,000	\$150,000	\$150,000	\$950,000
REVENUE FUNDING SOURCE									
Water CIP Fund	0	\$100,000	\$100,000	\$325,000	\$75,000	\$150,000	\$150,000	\$150,000	\$950,000
TOTAL	0	\$100,000	\$100,000	\$325,000	\$75,000	\$150,000	\$150,000	\$150,000	\$950,000
OTHER REVENUE SOURCE									
TOTAL	0	0	0	0	0	0	0	0	0

Aquifer Storage & Recovery Well #3

The Water Distribution System Hydraulic Study identified a need for the expansion of the city’s Aquifer Storage and Recovery Program. In FY 2007–2008, a 1,000-foot deep well was successfully drilled. Well head improvements which include the installation of a pump, motor, and accompanying pipe and chlorination system are scheduled in 2012. The pump station will provide 2.5 million gallons of water per day during dry summer months.



Aquifer Storage & Recovery Well #3				Location 13001 SW Bull Mountain Road		Funding Status Fully Funded		Project Manager(s) Rob Murchison <i>Public Works</i>	
	Actual 2009–10	Revised 2010–11	Projected 2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	PROJECTED TOTAL
EXTERNAL EXPENSES									
Design and Engineering	0	0	0	\$251,000	0	0	0	0	\$251,000
Construction	0	0	0	0	\$2,220,000	\$50,000	0	0	\$2,250,000
TOTAL	0	0	0	\$251,000	\$2,200,000	\$50,000	0	0	\$2,501,000
INTERNAL EXPENSES									
Project Management	0	0	0	\$14,000	\$21,000	0	0	0	\$35,000
Construction Management	0	0	0	0	\$200,000	0	0	0	\$200,000
TOTAL	0	0	0	\$14,000	\$221,000	0	0	0	\$235,000
TOTAL PROJECT EXPENSE	0	0	0	\$265,000	\$2,421,000	\$50,000	0	0	\$2,736,000
REVENUE FUNDING SOURCE									
Water CIP Fund	0	0	0	\$265,000	\$2,421,000	\$50,000	0	0	\$2,736,000
TOTAL	0	0	0	\$265,000	\$2,421,000	\$50,000	0	0	\$2,736,000
OTHER REVENUE SOURCE									
TOTAL	0	0	0	0	0	0	0	0	0

550' Zone Improvements (10 MG Transfer Pump Station Upgrade)

The existing transfer pump station located on the 10-million gallon reservoir site, serves both the 550-foot and 713-foot service zones. Construction of this improvement increases pumping capacity from 2,000 to 3,300 gallons per minute (gpm) for the 713-foot service zone. The pump station will also provide 3,900 gpm to the 550-foot Zone Reservoir No. 2. In addition, a seismic evaluation of the existing 10-million gallon reservoir will be completed to determine what upgrades shall be incorporated during construction as a part of the overall project.



550' Zone Improvements		Funding Status Bull Mountain Road & 125th Avenue				Funding Status Fully Funded		Project Manager(s) Rob Murchison Public Works	
	Actual 2009 – 10	Revised 2010 – 11	Projected 2010 – 11	2011 – 12	2012 – 13	2013 – 14	2014 – 15	2015 – 16	PROJECTED TOTAL
EXTERNAL EXPENSES									
Design and Engineering	\$318,662	0	\$167,826	\$14,485	0	0	0	0	\$182,311
Construction	\$586,777	\$3,299,186	\$3,854,080	\$676,381	0	0	0	0	\$4,530,461
TOTAL	\$905,439	\$3,299,186	\$4,021,906	\$690,866	0	0	0	0	\$4,712,772
INTERNAL EXPENSES									
Project Management	0	\$126,000	\$126,000	\$42,000	0	0	0	0	\$168,000
Construction Management	0	\$117,857	\$9,324	0	0	0	0	0	\$9,324
Public Involvement	\$315	0	0	0	0	0	0	0	0
TOTAL	\$315	\$243,857	\$135,324	\$42,000	0	0	0	0	\$177,324
TOTAL PROJECT EXPENSE	\$905,754	\$3,543,034	\$4,157,230	\$732,866	0	0	0	0	\$4,890,096
REVENUE FUNDING SOURCE									
Water CIP Fund	\$245,022	0	0	0	0	0	0	0	0
Water Fund	0	0	0	\$732,866	0	0	0	0	\$732,866
TOTAL	\$245,022	0	0	\$732,866	0	0	0	0	\$680,246
OTHER REVENUE SOURCE									
American Recovery & Reinvestment Act	\$660,732	\$3,543,043	\$4,157,230	0	0	0	0	0	\$4,157,230
TOTAL	\$660,732	\$3,543,043	\$4,157,230	0	0	0	0	0	\$4,157,230

Lake Oswego • Tigard Water Partnership

In 2008, Tigard entered into an agreement to develop a long-term water supply with the City of Lake Oswego. The new water supply is expected to be online in 2016.

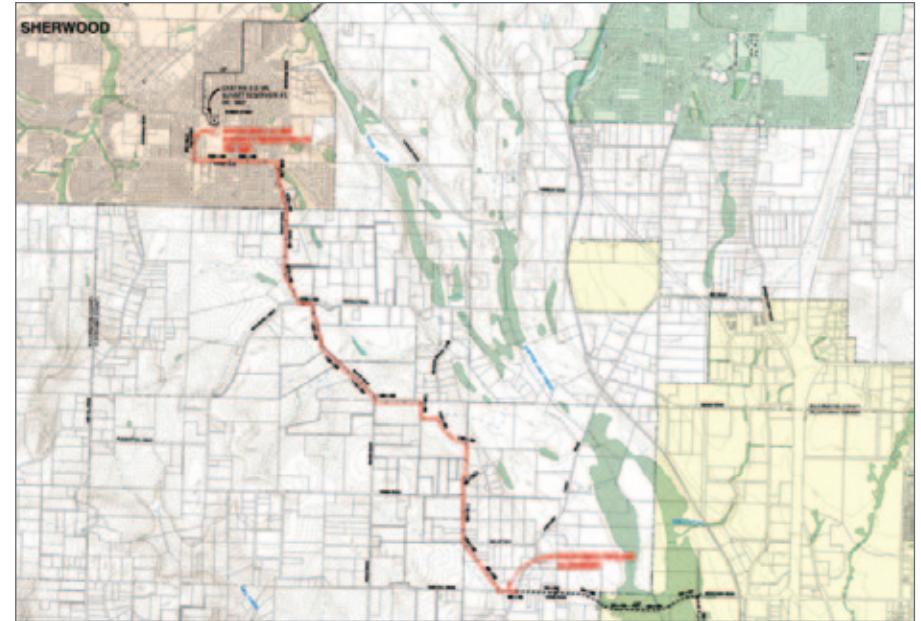
Capital construction projects include: expansion of the raw water intake structure on the Clackamas River, and increases in treatment plant capacity, transmission pipe sizing, storage capacity, and pumping capacity. Tigard's share of the total project cost is estimated at \$110 million. Revenue bonds will likely be used to finance partnership projects.



Lake Oswego • Tigard Water Partnership				Location Tigard Water Service Area		Funding Status Fully Funded		Project Manager(s) Dennis Koellermeier <i>Public Works</i>	
	Actual 2009–10	Revised 2010–11	Projected 2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	PROJECTED TOTAL
EXTERNAL EXPENSES									
Design and Engineering	0	0	0	\$3,803,000	\$3,881,000	\$2,095,000	\$134,000	0	\$9,913,000
Construction	\$2,128,779	\$4,800,000	\$5,363,000	\$130,000	\$7,596,000	\$52,175,000	\$31,580,000	0	\$96,844,000
Project Management	0	\$93,960	\$93,960	\$4,255,000	\$2,944,000	\$3,003,000	\$2,987,000	0	\$13,282,960
TOTAL	\$2,128,779	\$4,893,960	\$5,456,960	\$8,188,000	\$14,421,000	\$57,273,000	\$34,701,000	0	\$120,039,960
INTERNAL EXPENSES									
Project Management	0	0	0	\$50,000	\$50,000	\$50,000	\$50,000	0	\$200,000
TOTAL	0	0	0	\$50,000	\$50,000	\$50,000	\$50,000	0	\$200,000
TOTAL PROJECT EXPENSE	\$2,128,779	\$4,893,960	\$5,456,960	\$8,238,000	\$14,471,000	\$57,323,000	\$34,751,000	0	\$120,239,960
REVENUE FUNDING SOURCE									
Water CIP Fund	\$2,128,779	\$4,893,960	\$5,456,960	\$8,238,000	\$14,471,000	\$57,323,000	\$34,751,000	0	\$120,329,960
TOTAL	\$2,128,779	\$4,893,960	\$5,456,960	\$8,238,000	\$14,471,000	\$57,323,000	\$34,751,000	0	\$120,239,960
OTHER REVENUE SOURCE									
TOTAL	0	0	0	0	0	0	0	0	0

Sherwood Partnership

The city has agreed to invest in upsizing a water pipeline through Tualatin into Sherwood for future water needs.



Sherwood Partnership				Funding Status Tigard Water Service Area		Funding Status Fully Funded		Project Manager(s) Dennis Koellermeier <i>Public Works</i>	
	Actual 2009 – 10	Revised 2010 – 11	Projected 2010 – 11	2011 – 12	2012 – 13	2013 – 14	2014 – 15	2015 – 16	PROJECTED TOTAL
EXTERNAL EXPENSES									
Construction	\$1,557	\$1,000,000	0	\$4,333,333	0	0	0	0	\$4,333,333
TOTAL	\$1,557	\$1,000,000	0	\$4,333,333	0	0	0	0	\$4,333,333
INTERNAL EXPENSES									
Project Management	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0
TOTAL PROJECT EXPENSE	\$1,557	\$1,000,000	0	\$4,333,333	0	0	0	0	\$4,333,333
REVENUE FUNDING SOURCE									
Water CIP Fund	\$1,557	\$1,000,000	0	\$4,333,333	0	0	0	0	\$4,333,333
TOTAL	\$1,557	\$1,000,000	0	\$4,333,333	0	0	0	0	\$4,333,333
OTHER REVENUE SOURCE									
TOTAL	0	0	0	0	0	0	0	0	0

Water Line Replacement Program

This program includes replacement of water lines that have shown signs of deterioration. Water line breaks are a key indicator of long term pipe degradation. Lines have been identified along Kable Street and in King City. This program includes replacement of water lines that are not serviceable, or have reached the end of their 50 year life cycle. Funding beginning in FY 2012 for the replacement of approximately 600 feet of 4-inch pipe, the addition of two fire hydrants at the end of each lane, and the transfer of 23 service connections. Paving will be coordinated with King City administration.



Water Line Replacement Program		Location Monaco Lane & Kable Street at Hoodview Lane				Funding Status Fully Funded		Project Manager(s) John Goodrich Public Works	
	Actual 2009 – 10	Revised 2010 – 11	Projected 2010 – 11	2011 – 12	2012 – 13	2013 – 14	2014 – 15	2015 – 16	PROJECTED TOTAL
EXTERNAL EXPENSES									
Design and Engineering	0	0	0	0	\$25,000	0	0	0	\$25,000
Construction	0	0	0	\$50,000	\$375,800	0	0	0	\$425,800
TOTAL	0	0	0	\$50,000	\$400,800	0	0	0	\$450,800
INTERNAL EXPENSES									
Project Management	0	0	0	0	\$44,000	0	0	0	\$44,000
Construction Management	0	0	0	0	\$54,000	0	0	0	\$54,000
TOTAL	0	0	0	0	\$98,000	0	0	0	\$98,000
TOTAL PROJECT EXPENSE	0	0	0	\$50,000	\$498,800	0	0	0	\$548,800
REVENUE FUNDING SOURCE									
Water CIP Fund	0	0	0	\$50,000	\$498,800	0	0	0	\$548,800
TOTAL	0	0	0	\$50,000	\$498,800	0	0	0	\$548,800
OTHER REVENUE SOURCE									
TOTAL	0	0	0	0	0	0	0	0	0

New Pump Station to Reservoir #2

This new pump station will be used to pump water from the new joint water supply that is being delivered through the existing lower service zone piping to the 10 million gallon terminal reservoir. The pump station will be located at a reservoir site near 119th Place. This pump station is a recommendation based on the results of the Water System Master Plan that was adopted last year. This project will allow the large capacity 10 million gallon reservoir to store water for high demand days as well as emergencies.



New Pump Station to Reservoir #2		Location Reservoir at the south end of 119th Place			Funding Status Fully Funded			Project Manager(s) Rob Murchison Public Works	
	Actual 2009–10	Revised 2010–11	Projected 2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	PROJECTED TOTAL
EXTERNAL EXPENSES									
Design and Engineering	0	0	0	\$50,000	\$226,000	0	0	0	\$276,000
Construction	0	0	0	0	0	\$869,333	\$434,667	0	\$1,304,000
TOTAL	0	0	0	\$50,000	\$226,000	\$869,333	\$434,667	0	\$1,580,000
INTERNAL EXPENSES									
Construction Management	0	0	0	0	0	\$93,333	\$46,667	0	\$140,000
TOTAL	0	0	0	0	0	\$93,333	\$46,667	0	\$140,000
TOTAL PROJECT EXPENSE	0	0	0	\$50,000	\$226,000	\$962,666	\$481,334	0	\$1,720,000
REVENUE FUNDING SOURCE									
Water CIP Fund	0	0	0	\$50,000	\$226,000	\$962,666	\$481,334	0	\$1,720,000
TOTAL	0	0	0	\$50,000	\$226,000	\$962,666	\$481,334	0	\$1,720,000
OTHER REVENUE SOURCE									
TOTAL	0	0	0	0	0	0	0	0	0

Fire Hydrant Replacement Program

There are currently 2,041 hydrants in the city system. There are 550 hydrants that have been identified for replacement due to parts that are no longer available, which in turn limits the city’s ability to maintain them. This program will allow for the replacement of 50 aging hydrants per year. It is estimated that it will take approximately 11 years to replace all 550 hydrants.



Fire Hydrant Replacement Program				Location Citywide	Funding Status Fully Funded		Project Manager(s) John Goodrich Public Works		
	Actual 2009–10	Revised 2010–11	Projected 2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	PROJECTED TOTAL
EXTERNAL EXPENSES									
Construction	0	0	0	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
TOTAL	0	0	0	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
INTERNAL EXPENSES									
Project Management	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0
TOTAL PROJECT EXPENSE	0	0	0	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
REVENUE FUNDING SOURCE									
Water CIP Fund	0	0	0	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
TOTAL	0	0	0	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
OTHER REVENUE SOURCE									
TOTAL	0	0	0	0	0	0	0	0	0