Infrastructure Atlas of the Portland Metro Region

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INTRODUCTION

Metro is taking a look at the region's infrastructure needs to help define issues, opportunities and potential strategies to align public investments with the region's goals as expressed in the 2040 Growth Concept. The Metro Council identified the following infrastructure types as important to be included in this analysis: **roads, bridges, bike and pedestrian connections; sewer; water; stormwater; energy; transit; urban parks and greenspaces; parking facilities; schools; and civic buildings and facilities (including fire & police stations, libraries)**. The objectives of this effort are to:

- Identify issues and opportunities for infrastructure in the Portland metro region.
- Identify potential traditional and non-traditional infrastructure policy and financing strategies to provide infrastructure that is aligned with the objectives of the 2040 Growth Concept.
- Consider innovative approaches to service provision and demand management.
- Build a coalition of service providers willing to discuss and pursue solutions to regional infrastructure needs.
- Describe solutions to address the region's infrastructure needs.

Metro is working with infrastructure service providers to gather information on infrastructure needs, gaps to meet the needs, and possible options to close the gaps to ensure the infrastructure needed to support the 2040 goals is put in place.

Service Provider Questionnaire Data Summary and Analysis

Over the past few months, Metro has been collecting data from infrastructure service providers to help examine the region's long-term infrastructure needs and opportunities. The questionnaires were sent to all city and county managers as well as special districts and other infrastructure service providers in the Metro region (44 total). Respondents that provide multiple services were asked to complete a separate questionnaire for each infrastructure type. Thus far, we have received 59 completed questionnaires out of a potential 127. We will follow up with service providers we have not heard from and those who submitted incomplete information. In particular, we hope to get additional information about civic buildings and parks as well as energy. A parallel process is underway to gather data regarding school infrastructure needs.

The following preliminary data summary and analysis is intended to provide a basic understanding of infrastructure needs and opportunities and serve as the basis for further discussion of the issues. This information helps Metro assess the magnitude of the region's infrastructure needs to support the 2040 Growth Concept as we accommodate the next one million people.

Preliminary Findings

- There are commonalities, but challenges vary for different types of infrastructure
- Few responses focused on the need for civic buildings and parks, which play an important role in supporting great communities
- Funding challenges are especially significant for non-rate-paying infrastructure types (civic buildings, parks, transportation)
- Coordination is a significant challenge for water providers
- Most service providers coordinate with adjacent service providers and see potential benefits from increased cooperation
- The politics of raising adequate funds is a common issue for all types of infrastructure

This infrastructure atlas represents what we currently know about the region's needs for a variety of infrastructure types. The information is organized by type of infrastructure and includes a short narrative of what we have learned so far, the questionnaire results, and a map. Metro and Cogan Owens Cogan will be updating the atlas after the 2/22/2008 Infrastructure Workshop.

Civic Buildings

The cities of Cornelius, Gladstone, Tigard and Wood Village and Multnomah County completed questionnaires regarding civic building infrastructure. The City of Lake Oswego provided qualitative information on civic buildings. Multnomah County is in a different position than the cities as the County is currently divesting itself of a number of facilities. In Lake Oswego, the city hall building needs to be rebuilt because it does not meet seismic standards and has moisture damage. The city also is in need of a new maintenance shop. The library is a sound structure, but undersized to meet current demand. In Wood Village, the City Hall does not adequately accommodate existing staff and has no capacity for additional staff. The library in Cornelius is 67% below state standards and the general government building has no room for expansion. Together, the cities of Wood Village and Cornelius have approximately $9.5 million in planned capital improvements, for which less than 10% of necessary funds have been secured. More than 70% of these improvements are to accommodate future growth. The four cities identify a lack of funds as the top challenge to making capital improvements, whether it's due to a low per capita assessed value or the lack of a dedicated revenue source.

Questionnaire responses: CIVIC BUILDINGS

Provider Name	Existing Conditions		Planned Needs								
	Existing User Base (# of users)	Existing Excess Capacity (%)	Future Number of Users (total # of users)	Planning Horizon	Capital Improvements			Funding Status per project		
					Value (million $)	Upgrades	New Facilities	Fully	Partially	Unfunded
City of Cornelius	Current population estimate 10,895. Library service area 12,585	None	14,000-16,000	2020	$7.0	30%	70%			0%
City of Gladstone			Have not calculated	Close to buildout now			15%			
City of Tigard	46,715 population		57,000	2020	Recently working on a 20-year facilities plan.		15% Senior Center			
City of Wood Village	City population 3,100, city employees 13	None		2020	$2.5		100%		10%	
Multnomah County	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Energy

PGE completed a questionnaire regarding energy planning and infrastructure. PGE serves approximately 638,000 customers in the tri-county area and over 800,000 from Salem to the Columbia River. PGE serves about 85% of the region. Pacific Power serves about 25% of the City of Portland and smaller, publicly owned electric utilities in Canby and Forest Grove serve the rest of the region. PGE capital requirements are in the range of $180 to 250 million annually in transmission, generation, distribution and new customer connections through 2011. Growth for PGE occurs at approximately 2.1% annually. PGE and Pacific Power have an obligation to serve and rates are monitored by the state Public Utilities Commission, so questions about funding or funding gaps are not applicable. However, better coordination with other service providers as development occurs could result in cost savings for developers and ratepayers.

Community resistance to siting of new substations, power lines and other power system infrastructure is the greatest challenge for PGE. Another challenge is that increasing demand for access to the right-of-way and denser development make it difficult to locate/relocate facilities and increases costs for PGE and developers. City development code requirements aggravate the problem. Conservation, energy efficiency and sustainability efforts reduce revenues, but also reduce demand for electricity, helping to defer the need to build expensive new facilities. There is great potential to collaborate with governments at every level to enhance sustainability efforts.

Questionnaire responses: ENERGY

	Existing Conditions		Planned Needs							
					Capital Improvements			Funding Status per project		
Provider Name	Existing User Base (# of users)	Existing Excess Capacity (%)	Future Number of Users (total # of users)	Planning Horizon	Value (million $)	Upgrades	New Facilities	Fully	Partially	Unfunded
PGE	Approximately 638,000 customers in the tri-county area and over 800,000 in the northern Willamette Valley (Salem to Columbia River)	N/A	N/A. PGE grows at approximately 2.1% annually.	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Parks

The cities of Cornelius, Gresham, Hillsboro, Portland, Tigard and Wood Village returned questionnaires related to parks infrastructure. The City of Tigard alone has approximately $26 million in capital improvements over the next 12 years. The City of Hillsboro Parks Master Plan indicates a long-term cost of $50 million, which is thought to be low. Park acreage in the City of Gresham meets only 43% of the current need and will cost approximately $70 million to remedy. Parks and recreation service providers indicate that approximately 90% of the improvements are for new facilities. Eighty percent of those improvements are unfunded. In Portland, a lack of funding for facility operation and maintenance is listed as a major challenge to park infrastructure including an annual gap of $9.3 million. A lack of available land, the cost of land and insufficient funds from SDCs also are identified as challenges. Most respondents use intergovernmental agreements for park facilities and services and see the opportunity for additional efficiencies through coordination with other providers. One respondent emphasizes the need for investment in green infrastructure and design-with-nature (ecosystem services) concepts. Another service provider indicates that environmental regulations greatly increase the cost of providing amenities such as trails through natural areas.

Questionnaire responses: PARKS

	Existing Conditions		Planned Needs							
Provider Name	Existing User Base (# of users)	Existing Excess Capacity (%)	Future Number of Users (total # of users)	Planning Horizon	Capital Improvements: Value (million $)	Capital Improvements: Upgrades	Capital Improvements: New Facilities	Funding Status per project: Fully	Funding Status per project: Partially	Funding Status per project: Unfunded
City of Cornelius	Current population = 10,895 (7/1/07)	Minimal	10,970; almost exceeded already	2020	$1.6		100%		10%	90%
City of Gresham	As of February 1, 2008 Gresham's population is 100,000.	There is no excess capacity in the parks system. Gresham is lacking in most categories of parks service levels. Our community park acreage meets only 43% of the current need. The cost to remedy our existing deficiency is approximately $70 million.	Gresham's population is projected to reach 139,599 when the new communities of Pleasant Valley and Springwater are constructed.	Build out is somewhat difficult to define, but we expect most development within the current annexation areas to occur by 2040.		$40 million	$184 million	6%	1%	93%
City of Hillsboro	The existing user base is the resident population of the City of Hillsboro	As of now we are slightly deficient in some areas for park services, such as indoor facilities. However, our master plan plans for growth in an adequate manner to help serve additional population in the future.	Future population estimates are at approximately 120,000 residents.		The City is currently updating its parks and recreation master plan to better articulate this number. The current master plan shows a long-term cost of approximately $50 million. However, this number is known to be low, some features have been built since this estimate was completed, and our capital plan will be revised in the upcoming plan update.	10%	90%	10%	10%	80%. Funding operates on an approximately one to five year horizon. The funds used for capital development fluctuate with the rate of development. Annual projects are funded depending on the SDC funding stream.
City of Portland	COP population	Impossible to calculate at this time.	N/A	We are always adding capacity.						
City of Tigard	46,715 population		57,000	2020	$26.0		100%	10%	10%	80%
City of Wood Village	City population 3,100, park is used regionally not just by locals	Manages regional and local use.	Regional and local	2027	$0.5		100%	10%		

Sanitary Sewer

Thirteen service providers completed questionnaires about sanitary sewer infrastructure. The amount of excess capacity varies by location. Planned capital improvements for the next 10 to 40 years are nearly $1.8 billion. A significant percentage of funding is in place for short-term capital improvements. Sanitary sewer service providers indicate that more than 50% of capital improvement needs are for upgrades to existing facilities. The Kellogg Creek Water Pollution Control Plant serves approximately 85,000 customers with 800 – 1,000 new hookups each year. The plant is running at more than 100% of its hydraulic capacity and up to 150% of its organic load capacity on any given day. The affected jurisdictions are exploring several options and the potential solution may affect a number of communities, including Milwaukie, Happy Valley, Damascus, Lake Oswego, Oak Lodge Sanitary District, West Linn, Gladstone and Oregon City.

Service providers list a wide variety of challenges to implementing capital improvements, including:

- Complex state and federal regulations
- Reliable funding stream for construction and maintenance
- Increasing costs
- Planning and management

In addition, many respondents indicate a concern about their ability to serve urban growth boundary expansion areas. The majority of service providers participate in several intergovernmental agreements and see a definite benefit to expanding their cooperation and coordination with other service providers.

Questionnaire responses: SANITARY SEWER

	Existing Conditions		Planned Needs							
Provider Name	Existing User Base (# of users)	Existing Excess Capacity (%)	Future Number of Users (total # of users)	Planning Horizon	Capital Improvements			Funding Status per project		
					Value (million $)	Upgrades	New Facilities	Fully	Partially	Unfunded
Clackamas County Service District No. 1	42,500 EDUs as of July 1, 2007. 5,500 EDUs are served with rental capacity from Tri-City	36,000 Total. 28,000 Firm.	55,155 with Damascus. Damascus could be another 24,500 EDUs.	2025 without Damascus.	$110 Phase 1 Facilities for 20,000 EDUs (Estimates pending for buildout facilities needs. This capacity will be fully utilized in 2015.)	60% Replace existing capacity.	40% For growth.	100% to be funded by revenue bonds.		
Clean Water Services	258,141 EDUs as of 7/1/07	Clean Water Services has existing conveyance and treatment capacity (or is currently building capacity) to serve our service district through 2015. We also have facility plans to meet projected growth through 2025 as well as "buildout" numbers for current land use projections.	414,500 EDUs. West Basin (Rock Creek, Hillsboro and FG Wastewater Treatment Facilities): 258,000 EDUs; Durham Advanced Wastewater Treatment Facility: 156,500 EDUs	The limiting factor for sanitary sewer treatment is land availability for the existing treatment facilities. Given existing land use and treatment technology, Clean Water Services' West Basin wastewater treatment facilities will reach building in 2050 and Clean Water Services' Durham wastewater treatment facility will reach capacity in 2080.	The estimated value of treatment and conveyance capacity needs through 2050 will be around $500 million--$300 million for wastewater treatment facility upgrades and expansions; $100 million for pump station additions/replacements; and $100 million for regional sewer interceptor upgrades.			Short-term capital costs are funded with reserves; the District has bonding capacity to meet future needs at this time.		
Tri-City Service District	29,300 EDU as of July 1, 2007. 5,500 EDU in another service district are being served also.	38,000 Total. 32,000 Firm.	37,600 within UGB. 97,000 if UGB moves.	2023 at current growth rates if the UGB does not move.	$108 in 2007 dollars.	88%	11%	100% can be funded when existing authority is used. No grants are anticipated.		
City of Cornelius	4019 meter equivalents	minimal	7156	2024	$5.9	76%	24%		100% Rate study projects a mix of utility and SDC funding plus some grants and developer contributions	

	Existing Conditions		Planned Needs							
Provider Name	Existing User Base (# of users)	Existing Excess Capacity (%)	Future Number of Users (total # of users)	Planning Horizon	Capital Improvements			Funding Status per project		
					Value (million $)	Upgrades	New Facilities	Fully	Partially	Unfunded
City of Gladstone	4950 sewer EDUs;		Haven't really calculated	Close to buildout now	The city is very close to buildout now					
City of Gresham	111,000 (WWTP service population) 99,250 (collection system service population)	aprx. 40,000 additional (WWTP service population)	149,207 (WWTP service population)	2040	$79.9 million through 2024	60%	40%	19%	82%	
City of Hillsboro	Apprx 23,000				No Current Data			No current data		
City of Milwaukie	9815 EDUs	Critical limit of capacity is treatment facility. Milwaukie is a wholesale customer of CCSD#1.	Apprx 1800 EDUs in service area. Apprx 3500 EDUs as infill	2015	$15.5	90%	10%	5%		95%
City of Portland	175,000 Users (246,500 EDUs)	108 MGD capacity / 66 MGD existing flow) x 246,500 existing EDUs = 404,500 add'l EDUs to be served by existing treatment plants (ignores collection system's ability to convey flows to the plants.	205,000 Users; (289,000 EDUs) per 1999 PFP	2040 (ignores constraints to growth caused by current collection system deficiencies)	$781 (Represents only the significant facilities per 1999 PFP (excludes CSO Program))	95%	5%	5% (Budgeted amount = FY07/08 CIP less CSO Program Costs = $40M)		
City of Oregon City	Approximately 27,000 population	Depends on location in each system	2023, approx, 42,000 population	Each master plan addressed a 20-year planning horizon.	$153. Sewer=$16 (These dollar amounts do not include infrastructure needs in the UGB expansion areas. The concept plans are nearly complete but master plans and revised CIP's have not been finalized.)	2003 = 62%. Reimbursement SDC = 64%.	2003 = 38%. Improvement SDC = 36%.	Depends on system	Funding numbers not readily available.	Numbers assume bond sales & rate increases are approved.
City of Tigard	32,152		no answer	no answer	$5.0	100%		100%		
City of Troutdale	6,300 ERU	2,000 ERU	8,000 ERU	2016	$14.3			4%	0%	96%
City of Wood Village	628 # of users	151,120,86 GPD	849	2027	$3.2	37.6%	62.4%	50%		

Stormwater

Ten service providers provided information about stormwater infrastructure. Service providers indicate that their systems have little to no excess capacity. Eight of the service providers identified a total of more than $100 million in planned capital improvements, of which a small portion is fully funded. As with sanitary sewer, more than 50% of capital needs are for upgrades to existing facilities. The City of Cornelius estimates $6.1 million in needed capital improvements by 2024, 70% of which are for new facilities. None of these improvements are fully funded.

Stormwater service providers list the same challenges to implementing capital improvements as sanitary sewer providers:

- Complex state and federal regulations
- Reliable funding stream for construction and maintenance
- Increasing costs
- Planning and management

Lack of political will to raise funds for infrastructure is an additional concern. About half of the respondents indicate that they currently coordinate with other providers and see opportunities for additional coordination.

Questionnaire responses: STORMWATER

	Existing Conditions		Planned Needs							
Provider Name	Existing User Base (# of users)	Existing Excess Capacity (%)	Future Number of Users (total # of users)	Planning Horizon	Capital Improvements			Funding Status per project		
					Value (million $)	Upgrades	New Facilities	Fully	Partially	Unfunded
City of Cornelius	5431 ESU	minimal	9671	2024	$6.1	30%	70%		100%	
City of Gladstone			Haven't really calculated	Close to buildout now	The city is very close to buildout now					
City of Gresham	56,775	This analysis has not been performed throughout the city. Much of the existing stormwater conveyance system is at or over capacity, so an estimate of additional dwelling units that could be served without infrastructure upgrades would be less than 5,000.	56,775 existing + 10,000 additional in current city limits + 5,000 Pleasant Valley + 5,000 Springwater = 76,775.	Uncertain, 2040 estimate	$70.0	15%	85%	10%	0%	90%
City of Hillsboro	Apprx 23,000				No Current Data			No current data		
City of Milwaukie	NA	None	NA	N/A	$12.0	80%	20%	(within next 5 years) 7.5%		93%
City of Oregon City	Approximately 27, 000 population	Depends on location in each system	2023, approx, 42,000 population	Each master plan addressed a 20-year planning horizon.	Storm=$5	2008 = 60%. Reimbursement SDC = 77%.	2008 = 40%. Improvement SDC = 23%.	Depends on system	Funding numbers not readily available.	Numbers assume bond sales & rate increases are approved.
City of Portland	175,000 Users (246,500 EDUs)	108 MGD capacity / 66 MGD existing flow) x 246,500 existing EDUs = 404,500 add'l EDUs to be served by existing treatment plants (ignores collection system's ability to convey flows to the plants.	205,000 Users; (289,000 EDUs) per 1999 PFP	2040 (ignores constraints to growth caused by current collection system deficiencies)	$781 (Represents only the significant facilities per 1999 PFP (excludes CSO Program))	95%	5%	5% (Budgeted amount = FY07/08 CIP less CSO Program Costs = $40M)		
City of Tigard	32,152		n/a	no answer	$5.0	100%				100%
City of Troutdale	5,100 ERU	2,000 ERU	1,000 ERU	2016	$3.7 (City costs only)	0%	100%	35%	0%	65%
City of Wood Village	3,100 population; 121 businesses	no existing excess capacity	849 (Business count unknown)	2027	$1.1	79%	21%	20%		

Transportation/Transit

Service providers from eight cities and one county completed questionnaires regarding transportation infrastructure. Six of these service providers list planned capital improvements in excess of $420 million, with less than 10% of these improvements fully-funded. More than 75% of capital improvements are for upgrades to existing facilities. The City of Tigard reports a need for $225 million in transportation capital improvements by 2020. Eight percent of these improvements are for upgrades to the system. A vast majority of the improvements are currently unfunded.

Again, the biggest challenges to implementing capital improvements are:

- Complex state and federal regulations
- Reliable funding stream for construction and maintenance
- Increasing costs
- Planning and management
- Lack of public dialogue/political will

The majority of these jurisdictions coordinate with their respective county and see opportunities to increase efficiencies and raise funds by partnering with counties, the state and adjacent cities. Several service providers indicate that rising fuel costs are a concern and that the yield on the gas tax will decrease as cars become more fuel-efficient. Opportunities exist to benefit from increased multi-modal services.

TriMet completed a questionnaire regarding transit planning and infrastructure. TriMet serves approximately 317,400 people daily (weekday). Capital improvements totaled $11 million in 2007. Three quarters (75%) of capital improvements are for accommodating future growth and the remainder (25%) is to serve existing customers. Approximately 94% of TriMet's planned capital improvements are unfunded. A lack of funding for operations and capital improvements is the biggest challenge to implementation. There is insufficient funding for transit infrastructure at the federal and state levels. Another challenge is developing local partnerships to provide complementary access to transit service (e.g., sidewalks). TriMet taxing authority falls under ORS 267 and includes the ability to tax payroll and issue bonds. It does not include sales or property tax, but may include the ability to collect SDCs. TriMet sees many potential benefits to partnering with local communities.

Questionnaire responses: TRANSPORTATION/TRANSIT

	Existing Conditions		Planned Needs							
Provider Name	Existing User Base (# of users)	Existing Excess Capacity (%)	Future Number of Users (total # of users)	Planning Horizon	Capital Improvements			Funding Status per project		
					Value (million $)	Upgrades	New Facilities	Fully	Partially	Unfunded
City of Cornelius				2025	$2.9	50%	50%	10%	40%	50%
City of Gladstone	40 centerline miles of streets		Haven't really calculated	Close to buildout now	The city is very close to buildout now					
City of Happy Valley	3100 EDU	TSP		2025						
City of Hillsboro	Approximately 50,000 jobs; Approximately 34,900 housing units	The shortfalls are the RTP facilities and in adding bike/ped and shoulder facilities to existing local and neighborhood route streets. Also shortfall in road maintenance funding. City is studying implementation of a Transportation Utility Fee to cover maintenance costs and provide some funding for bike/ped improvements on local streets and neighborhood routes in older neighborhood.	Capacity for 50,000 more jobs; capacity for 2,300 more housing units.	Housing: 5-8 years. Jobs: 20 years.	Not available					100%
City of Milwaukie	26,166 trips (2-hour pm peak)	N/A	28,530 trips (2-hour pm peak)	2030 (Note: not a buildout year, but planning horizon year)	$100+	95%	5%		5%	95%

	Existing Conditions		Planned Needs							
Provider Name	Existing User Base (# of users)	Existing Excess Capacity (%)	Future Number of Users (total # of users)	Planning Horizon	Capital Improvements			Funding Status per project		
					Value (million $)	Upgrades	New Facilities	Fully	Partially	Unfunded
City of Oregon City	Approximately 27, 000 population	Depends on location in each system	2023, approx, 42,000 population	Each master plan addressed a 20-year planning horizon.	Transp.=$88	Transp. - 2001 = 23%	Transp. - 2001 = 77%	Depends on system	Funding numbers not readily available.	Numbers assume bond sales & rate increases are approved.
City of Tigard	no answer	no answer	57,000	2020	$225.0	80%	20%	10%	5%	85%
City of Troutdale	NA	NA	NA	2016	$3.5 (City costs only)	100%		25%	0%	75%
Washington County	511,075 (2007 population) 2.61 persons/household	Excess capacity exists on lower classification streets (local and neighborhood routes) at nearly all times and on major street network (collectors and above) outside of the daily AM and PM peak travel periods. During the peak periods, excess capacity varies by roadway and is typically measured by volume to capacity (v/c) ratio. Metro keeps this information as part of the Regional Travel Model.	The 2020 Transportation Plan projects needs and population through the year 2020 (see Introduction & Background Section). Metro's updated RTP projects needs and population through the year 2035.	2020	The System Funding & Financing Element (Policy 18.0) of the 2020 Transportation Plan addresses the costs and funding questions for the transportation system needs that the Plan identifies through the year-2020 planning horizon.					
Trimet	317,400 daily (weekday)	Varies by route and time of day/week +/- 20% excess before MAX, for example would "hit the wall"		Moving target and resources are undetermined. We'd get close by 2050, but the needs will grow.	$11 mill in 2007 (capital)	25%	75%	1%	5%	94%

Water

Fourteen water service providers completed Metro's Regional Infrastructure Study Service Provider Questionnaire. Planned capital improvement costs for twelve of these service providers total approximately $850 million for the next five to twenty years. Funding for these capital improvements varies from one provider to the next. More than 50% of the capital needs are for new growth. However, the Oak Lodge Water District identifies $2 million in needed capital improvements, 100% of which is for upgrades to the existing system.

Although many water providers use intergovernmental agreements to provide service, intergovernmental coordination is listed as a major challenge in addition to those identified by providers of other infrastructure types (regulations, funding, costs and planning). However, there is a Regional Water Providers Consortium that "serves as a collaborative and coordinating organization to improve the planning and management of municipal water supplies in the Portland metropolitan region." The Consortium coordinates implementation of the Regional Water Supply Plan, provides a forum for study and discussion of water supply issues, and promotes cost-efficient use and stewardship of water resources. Water providers will need to work with stormwater and wastewater service providers to effectively build and manage a viable reclaimed water system. Service providers state that while water conservation efforts reduce demand, they also reduce revenue.

Questionnaire responses: WATER

	Existing Conditions		Planned Needs							
Provider Name	Existing User Base (# of users)	Existing Excess Capacity (%)	Future Number of Users (total # of users)	Planning Horizon	Capital Improvements			Funding Status per project		
					Value (million $)	Upgrades	New Facilities	Fully	Partially	Unfunded
Oak Lodge Water District	8,545 accounts, apprx 30,000 residents	4,00 more accounts	Apprx 9,000 accounts; population approx 32,000	Approx 2030	$2.0	100%		100%		
South Fork Water Board	51,260 population	33.8 mgd	75,090	2023	$17.0	20%	80%			
Sunrise Water Authority	17,500 ERUs	Current water right capacity can accommodate an additional 26,500 ERUs.	Approximately 90,000 ERUs.	Beyond 2028.	$300 in 2004 dollars.	10%	90%	0%	5%	95%
Tualatin Valley Water District	56,621 EDUs; 193,400 population	Current system excess capacity on a peak day is less than adequate in 2012, assuming population grows by appx 13,000 over that period	Buildout population of 474,500	Current projections are that buildout will not occur for the next 50 years.	$376 is estimated to be spent by 2026, which will handle supply needs until 2057	25%	75%	100%		
City of Cornelius	3899 meter equivalents	minimal	6943	2024	$10.8	50%	50%		100%	
City of Gladstone	3354 water meters		Haven't really calculated	Close to buildout now	The city is very close to buildout now					
City of Gresham	16,668	2.19 MGD or 4,994 EDU	103609	2030	$90.3	49.5%	50.5%	8%	12%	80%
City of Hillsboro	27,701 EDU	15,223 EDU	66,107 EDU	We will reach capacity of our current storage & planned supply expansion in the Tualatin Supply Project (Scoggins Dam Raise) between 2050-2057	$195.0	34% Capital improvements to serve existing customers.	66% Capital improvements to serve new customers	100% Funded through SDCs & water rates. SDC funding - CIP new customers. Water rates - CIP existing customers.		
City of Milwaukie	7000 Accounts (6000 residential, apprx 1000 commercial)	existing excess capacity	1500 users	2015	$6.0		100%			100%

	Existing Conditions		Planned Needs							
Provider Name	Existing User Base (# of users)	Existing Excess Capacity (%)	Future Number of Users (total # of users)	Planning Horizon	Capital Improvements			Funding Status per project		
					Value (million $)	Upgrades	New Facilities	Fully	Partially	Unfunded
City of Oregon City	Approximately 27, 000 population	Depends on location in each system	2023, approx, 42,000 population	Each master plan addressed a 20-year planning horizon.	Water=$44	2004 =57%. Reimbursement SDC = 26%.	2004 =43%. Improvement SDC = 74%.	Depends on system	Funding numbers not readily available.	Numbers assume bond sales & rate increases are approved.
City of Portland	Retail population 539,000; wholesale service area is 262,700. We have 178,000 services within the retail area (which comprises most of the City Limits of Portland minus about 30,000 people served by Rockwood PUD)	The Bureau has two water sources, Bull Run and the groudnwater system along Columbia River, which can serve the current retail/wholesale service area into at least the next 20 years. There is excess capacity in the Portland system when both sources are used conjunctively.	We utilize Metro's allocations for population to develop our retail system needs through studies such as the Distribution System Master Plan. We have identified no limitations for increased service within the retail service area. We have excess water groundwater rights as well as statutory rights to increase surface water source development in the Bull Run if needed.	From a water service perspective, we don't anticipate reaching capacity limitations any time in the next few decades. We have a 5 year CIP and are developing a Public Facilities Plan as a part of the City of Portland Comprehensive Plan update.	Not available			Not available		
City of Tigard	17,721 services (56,800 population)	5,000 services (68,043 population)	7,090 services (73,715 population)	2020 (+/- 5 years)	$70-100	25%	75%	25%	25%	50%
City of Troutdale	6,000 ERU	1,000 ERU	7,200 ERU	2016	$4.8 (City costs only)	25%	75%	10%	0%	90%
City of Wood Village	637 # of users	590,853,47 GPD	849	2027	$2.5	75%	25%	30%		