

Capital Facilities Element

Purpose and Relationship to GMA

The Growth Management Act requires a Capital Facilities Element as a component of the Comprehensive Plan. The Capital Facilities element is required to consist of the following:

1. An inventory of existing capital facilities owned by public entities, showing the locations and capacities of the facilities;
2. A forecast of the future needs for the above capital facilities;
3. The proposed locations and capacities of expanded or new capital facilities;
4. At least a six-year plan to finance capital facilities within projected funding capacities, which plan clearly identifies sources of public money for such purposes;
5. A requirement to reassess the land use element if probable funding falls short of meeting existing needs and to ensure that the land use element, capital facilities plan element and financing plan within the capital facilities plan element are coordinated and consistent.

The Washington Administrative Code recommends that a capital facilities element should include water systems, sanitary sewer systems, storm water facilities, schools, parks and recreation facilities, and police and fire protection facilities. All of those facilities are addressed in this element, plus city offices and maintenance shop facilities, libraries and the Northshore Senior Center.

The intent of the GMA in requiring a capital facilities element is to ensure that the public facilities which serve a jurisdiction's citizens are in place generally as growth occurs, rather than lagging behind. As the WAC states, "The capital facilities element should serve as a check on the practicality of achieving other elements of the plan."

The Act can be summarized as mandating that a balance be maintained among three interrelated factors:

1. Land use allocation, which creates demand for facilities;
2. Level of service (LOS) guidelines, which determine the number, size, extent and nature of facilities for a given demand;
3. Projected financial capacity, which determines what types and amounts of revenue are available for capital facilities.

This element is presented in two parts:

1. Capital Facilities inventories, adopted levels of service guidelines, and needs projections driven by those LOS guidelines; and
2. Goals, Policies and Actions, to provide direction for capital facilities decisions in accordance with the Growth Management Act. This section contains the City's required six-year capital facilities

finance plan. Please note that this finance plan addresses the capital facilities discussed in this element plus transportation facilities. Transportation facilities needs are discussed in detail in the Transportation Element of the Comprehensive Plan. The six-year finance plan will be updated biennially in conjunction with the budget process.

Inventories, LOS Guidelines, and Needs Projections

This section presents summaries of existing inventories within the City's boundaries; levels of service guidelines; and needs projections, based on the LOS, for the following types of public facilities, where appropriate:

- City offices and support buildings;
- City maintenance shop facilities;
- Fire and emergency medical facilities;
- Police facilities;
- Parks and recreation facilities;
- Potable water supply, storage and distribution facilities;
- Wastewater collection and treatment facilities;
- Stormwater management facilities;
- Public schools;
- Libraries; and
- Northshore Senior Center.

Please note that needs projections are for the area within the Bothell city limits, rather than for the entire Planning Area, since growth forecasts provided by King and Snohomish Counties are based on the incorporated area, and since it is not possible to reliably predict when annexations will occur, or where or how large they will be when they do occur.

City Offices

City offices (excluding Police, Fire, and Public Works and Parks Shops, which are addressed separately) are in two locations. These buildings, with floor areas and uses located in each, are as follows (see map **Figure CF-1**):

Table CF-1
City Offices Inventory

Building name and location	Land Area	Floor Area	Office uses
Bothell City Hall 18305 101st Ave. NE (not including two unused houses on same block)	56,928 sq. ft.	11,682 sq. ft.	Executive, City Clerk, Finance, Administrative Services, Legal
Dawson Building (including half of modular structure behind Dawson: other half included in Fire facilities) 9654 NE 182 nd St.	53,770 sq. ft.	Dawson: 8,666 sq. ft. Half of modular: 400 sq. ft.	Community Development, Public Works, Fire Prevention Bureau

Total useable floor space occupied by City office uses as of December 1, 2004 was 20,748 square feet. (The City also owns a building north of the Dawson Building, but this is leased to Hopelink, a human services agency, and thus is not included among City office space.)

The adopted level of service guideline for city office space is 1,280 square feet per 1,000 population. This guideline is unchanged from the original 1994 Imagine Bothell... Plan, and was developed by the Bothell Public Works Department based on the average of recommended standards between 1987 and 1992 space needs studies, the first performed by a consultant, the second by City staff. The guideline states that the City should defer construction of city offices to the earliest date when fiscally possible, and that the level of service should be reassessed at that time.

Based on this LOS, existing and projected needs for city office space are as follows:

2004 City population	2004 City office space need, per LOS	2004 surplus or (deficit)	Projected 2025 population	Projected 2025 City office space need, per LOS
30,930	39,552 sq. ft.	(18,804) sq. ft.	42,836	54,784 sq. ft.

A bond issue to construct a new City Hall was placed before the voters in 2002 but failed. No City office capital projects are included in the 2005-2010 capital facilities finance plan. However, the City is exploring the feasibility of expanding the Dawson building to address an existing space shortage for Community Development and Public Works staff. As a longer-term space needs solution, the City is also looking into the possibility of acquiring from the Northshore School District the Anderson Building, in which all City offices could be consolidated. Such an approach would depend on the School Board's decision concerning the disposition of its Downtown property. If the City acquires the Anderson Building, the Dawson Building property would likely be surplus. The City Hall property might be surplus, or it

might be retained by the City and redeveloped as a parking garage or other use which would promote economic development Downtown.

City Maintenance Shop Facilities

City Maintenance shop facilities are found at three locations. These facilities, with floor areas of each, are as follows:

Table CF-2
City maintenance shop facilities inventory

Facility name and location	Land area	Floor area	Function
Public Works Shop 1, 17555 Brickyard Road	348,200 sq. ft.	11,000 sq. ft.	Fleet and facilities, large equipment storage
Public Works Shop 2, 9608 NE 185 th Street (space leased from Northshore School District)	1,132,560 sq. ft. (part of 26-acre School District downtown property)	10,800 sq. ft.	Water, sewer, street, storm and parks
City Hall Shop, 10018 NE 183 rd Street	15,637 sq. ft.	3,200 sq. ft.	General equipment storage

Total floor space occupied by City maintenance shop uses is 25,000 square feet.

The adopted level of service guideline for maintenance shop space is 1,460 square feet per 1,000 population. This guideline is unchanged from the original 1994 *Imagine Bothell... Plan*, and is based on a 1987 space needs study performed by a consultant. The guideline states that the City should defer construction of maintenance shops to the earliest date when fiscally possible, and that the level of service should be reassessed at that time.

Based on this LOS, existing and projected need for city shop maintenance uses are as follows:

2004 City population	2004 City shop space need	2004 surplus or (deficit)	Projected 2025 population	Projected 2025 City shop space need
30,930	45,114 sq. ft.	(20,114 sq. ft.)	42,836	62,488 sq. ft.

The 2005-2010 capital facilities finance plan does not include any projects related to maintenance shop facilities. However, the City is exploring a number of options for consolidating and expanding maintenance shop space, among them constructing a joint maintenance facility with the Northshore School District. When an alternative is selected, it will be added to the capital facilities finance plan.

Fire and Emergency Medical Services Facilities and Operations

In order to start a comprehensive planning process to project needs for Fire Department Capital Facilities and Operations, the establishment of baseline data is necessary. The City of Bothell Fire Department "Service Priorities and Funding Survey (July 2004)" (**Appendix L**) states that the Level of Service (LOS)

the Fire Department is currently able to provide is also a desirable LOS to carry into the future. As with past comprehensive plan assumptions, this planning assumption does not include potential annexation areas and their related populations. This planning information should be used as baseline information as annexations are proposed so that accurate impacts can be evaluated. With that in mind, the following information is provided to establish some baseline information about how current Levels of Service are met.

Three Firehouses are located within the city's Planning Area: Downtown Firehouse, Queensborough Firehouse, and Canyon Park Firehouse (see map, **Figure CF-1**). All are within the city limits. The Queensborough Firehouse is owned by Fire District 10.

2003 baseline figures:

Population served -	42,000 (City and Sno. 10)
Response area served -	15 square miles
Full Time Equivalent staff (FTEs) -	59.5 total
	45 Line personnel with 10.5 minimum staffing
	1 each - Chief, Deputy Chief, Fire Marshal, Support Services
	Battalion Chief, Haz-mat inspector, Lieutenant Plans
	reviewer, Firefighter inspector, Training Battalion Chief,
	Training firefighter, Civilian public educator.
	4.5 Civilian Administrative assistants

2003 Call Volumes, total and by type -	Total Calls - 4,507
	Fire - 187
	Rupture - 21
	Medical - 3,259
	Haz. Condition - 88
	Service Call - 154
	Good Intent - 289
	False Alarm - 502
	Severe Weather - 4
	Special - 3

Inspections / data collection, total and by firehouse -	Total inspections / data collection - 1,725
	Downtown Firehouse - 508
	Canyon Park Firehouse - 397
	Queensborough Firehouse - 358
	Haz-Prevention Inspections - 462

Assigned hydrant maintenance per firehouse (50 percent of total of 1,964 each year) -	Downtown Firehouse - 837 total, 50% = 418
	Canyon Park Firehouse - 697 total, 50% = 348
	Queensborough Firehouse - 425 total, 50% = 212

Fire Department facilities, with floor areas and current equipment and staffing levels in each as of 2004, are as follows:

**Table CF-3
Fire and emergency medical services facilities inventory**

Facility, location and land area	Available space	Current use	Total floor area
<p>Downtown Firehouse (Station 42) 10726 Beardslee Blvd.</p> <p>Land area: 68,016 sq. ft.</p>	<p>Emerg. Resp. Vehicles: 2 Engines 1 Aid Unit 1 Truck 1 Medic Unit 1 Command Unit</p> <p>24 hr. Response Personnel: *10 assigned *7.5 minimum</p> <p>Administrative Staff: 1 Chief 1 Deputy Chief 1 Administrative Battalion 2-1/2 Pub. Educators 1-3/4 Sr. Admin. Asst. 1-3/4 Office Specialists</p>	<p>1 Battalion 2 Medics 4.5 min. operational staffing - 7 max.</p> <p>**Jump crews respond with next available units.</p> <p>Facility at capacity.</p>	<p>3,748 sq. ft. = response crew quarters</p> <p>4,185 sq. ft. = Apparatus Bay</p> <p>8,323 sq. ft. = Administrative Offices</p> <p>Total Square Footage 16,256 sq. ft.</p>
<p>Canyon Park Firehouse (Station 45) 1608 217th Pl. SE</p> <p>Land area: 32,000 sq. ft.</p>	<p>Emerg. Resp. Vehicles: 2 Engines 1 Aid Unit</p>	<p>3 min. operational staffing - 4 max. If min. staffing = All respond on any call If max. staffing = Jump crew if first call is for Aid</p> <p>Facility at capacity.</p>	<p>4,752 sq. ft.</p>
<p>Queensborough Firehouse (Station 44) 330 228th St. SE</p> <p>Owned by Snohomish County Fire Protection District 10</p> <p>Land area: Part of federal FEMA property - not on separate parcel</p>	<p>Emerg. Resp. Vehicles: 1 Engine 2 Aid Units</p>	<p>3 min. operational staffing - 3 max.</p> <p>All respond on any call</p> <p>Facility at capacity.</p>	<p>3,692 sq. ft.</p>
<p>Fire Prevention Bureau (Portable) 9654 NE 182nd Street</p> <p>Land area: See City offices.</p>		<p>FPB Staff: 1 Fire Marshal 1 Plans Examiner 1 Fire Inspector 1 Haz/Mat Specialist 1 Administrative Assistant</p> <p>Facility at capacity.</p>	<p>400 sq..ft.</p>

* Paramedic services provided through contract with Shoreline Fire Department. Two paramedics and one medic unit housed at the Downtown Firehouse 24/7, 365.

** Response to calls are dictated by the number of staff available. Jump crews will utilize the appropriate apparatus depending on call type, i.e., If staffing is at 4 personnel and an engine call comes in, all 4 crew members will respond on the engine thus leaving all other units unavailable for response. Conversely if an aid call comes in first and staffing levels are at 4 personnel, 2 personnel will respond leaving 2 personnel for a second response. At Firehouses that are staffed with three, if one apparatus is called for response, the other apparatus is unavailable for response.

This Plan contains both capital facilities and operational level of service guidelines for Fire and Emergency Medical Service. The adopted capital facilities LOS guideline is 9,282 persons per firehouse. This guideline is unchanged from the original 1994 Imagine Bothell... Plan, and was developed by a consultant on the basis of a Fire Department goal of improving geographic coverage over the 20-year planning horizon. The Fire Department had identified the goal of locating stations such that 65 percent of the Planning Area population would be within a five minute response time for fire and emergency medical aid service. The consultant converted that LOS to a persons per firehouse index. The adopted operational LOS is a five minute response time to 50 percent of all Fire and Emergency Aid calls.

Based on the adopted Fire and EMS capital facilities LOS, the existing and projected needs for firehouses are as follows:

2004 City population	2004 firehouse need	2004 surplus or (deficit)	Projected 2025 population	Projected 2025 City firehouse need
30,930	3 firehouses (3.33)	(.33)	42,836	4 firehouses (4.5)

Using only population indicators, there is currently a deficit in the number of firehouses. Based on a 2004 city population of 30,930 and population growth projections to 2025, forecasted facility needs for the next 20 years, by half-firehouse increments, are as follows:

3.5 firehouses needed by 2007 (projected population of 32,631);

4.0 firehouses needed by 2015 (projected population of 37,167);

4.5 firehouses needed by 2024 (projected population of 42,270).

At this time, the 2005-2010 capital facilities finance plan does not include any projects relating to the expansion of existing houses or construction of a new firehouse. However, the Fire District 10 Commissioners are considering the feasibility of renovating and expanding the Queensborough firehouse to improve operational capabilities, and have asked the City to participate in the project. If the City Council decides to do so, the project will be added to the capital facilities finance plan. Due to workload and call capacity it is currently projected that in 2005 and/or 2006, staffing levels will need to be addressed at the Downtown Firehouse.

Previous studies have indicated that the next firehouse should be located on the south end of the city. Current information establishes this need by 2008. There is not a current contingency for land acquisition and/or funding for this projection. In 2005, the Fire Department will be re-evaluating and updating the needs analysis with a potential need for making amendments within this planning document including but not limited to land acquisition and/or partnering with bordering jurisdictions.

It should be noted that Fire and EMS capital facilities and operational LOS do not relate to population growth alone, and thus true needs cannot be neatly projected into the future. The Fire and EMS LOS are a function of population growth, to be sure, but they are impacted as much by station location,

population demographics, and the configuration, capacity and efficiency of the transportation system as by the number of persons in Bothell. In other words, increasing Fire and EMS facilities and staff proportionally to population growth would not necessarily result in maintenance of the adopted LOS if transportation network constraints prevent emergency apparatus from responding to calls in a timely manner, or changing population demographics result in disproportionately large increases in call volumes. These influences may generate the need earlier than a population-based guideline would indicate for a new firehouse, or, alternatively, for an increase in the building footprint, apparatus and staffing levels of a current firehouse.

Police Facilities and Operations

In 2000, a new Police Station and Municipal Court were constructed across the street from City Hall (see map, **Figure CF-1**). These facilities replaced leased space in the Quadrant North Creek business park. The new facilities are described as follows:

Table CF-4
Police services facilities inventory

Building name and location	Land area	Floor area	Function
Bothell Public Safety Building 18410 101 st Avenue NE	67,455 sq. ft.	34,562 sq. ft.	Administration, dispatch, holding cells, training, evidence
Bothell Municipal Court 10116 NE 183 rd Street		6,000 sq. ft.	Admin., Court (doubles as Council Chambers), records storage

As was the case with Fire and Emergency Medical Services, the Plan contains both capital facilities and operational level of service guidelines for Police services. The capital facilities LOS guideline is 900 square feet of facility per 1,000 population. This guideline is based on the Police Department’s knowledge of current level of usage and remaining capacity of the facilities measured against projected growth. It should be noted that a recommendation in the original 1994 Plan that the police station be relocated “as soon as feasible” from its leased facility at the time in the North Creek Valley was implemented with construction of the new Downtown station.

The police services operational LOS guideline is to achieve and maintain average response times of five minutes to emergencies and 30 minutes to non-emergencies. The GMA does not require adoption of operational LOS for Police services.

Based on the capital facilities LOS, the existing and projected need for police facility space are as follows:

2004 City population	2004 police facility space need	2004 surplus or (deficit)	Projected 2025 population	Projected 2025 police facility space need
30,930	27,810 sq. ft.	12,752 sq. ft.	42,836	38,520 sq. ft.

Insofar as there is a sizable surplus in police facility space, the 2005-2010 capital facilities finance plan does not include any police facility projects.

The police services operational LOS, similar again to the Fire and EMS operational LOS, does not directly relate to population growth, and thus operational needs cannot be clearly projected into the

future. The Police operational LOS is a function of population growth, transportation system capacity and congestion, and the evolving demographic composition of the city.

For these reasons, Police services operational needs are not projected (nor are they required to be by the GMA). As of the end of 2004, according to the Police Department, the operational level of service guideline for non-emergency calls is being met, but response times for emergencies occasionally extend beyond five minutes.

Parks and Recreation Facilities

Information in this section is taken from the 2000 Parks, Recreation and Open Space Action Program (PROSAP) Update, revised where necessary to be current. The PROSAP is incorporated in this Plan by reference as **Appendix F**.

Park and recreation facilities owned, leased or otherwise under the administrative control of the City of Bothell as of 2004 are listed in **Table CF-5**. For reference purposes, parklands in Bothell owned and controlled by other entities are listed as well.

**Table CF-5
Parks and recreation facilities inventory (see also Figure CF-2)**

Name	Gross acres	Developed acres	Undeveloped acres	Open space acres
Owned, leased or under administrative control of City of Bothell				
Bloomberg Hill Park	.70	.70		
Blyth Park	40.80	19.50		21.30
Brackett's Landing Park	0.50	0.50		
Brickyard Road Park	3.60	3.60		
Cedar Grove Park	13.75	1.00	6.00	6.75
Conifer View Park	1.50	1.50		
Conifer View IV (Tall Tree) Park	1.00	1.00		
Haynes property	4.70		2.50	2.20
Kaysner property	.60			.60
North Creek Sportsfields	14.00	14.00		
Northshore (Archstone) Trail	.40			.40
Park at Bothell Landing	12.25	5.87	1.80	4.58
Park at North Creek	.57		.57	
Pioneer Cemetery	5.30			5.30
Red Brick Road Park	0.50	0.50		
Royal Oaks Park	2.25	2.25		
Sammamish River Park (portion owned by Bothell)	29.30	6.43	2.00	20.87
Skateboard Park	0.40	0.40		
Stipek Park	3.60	3.60		
Swedish Cemetery	.60			.60
Thrasher's Corner Park	54.00		26.00	28.00
Triangle Park	0.10	0.10		
Volunteer Park	0.22	0.22		
Westhill Sportsfields	7.60	7.60		
William Penn Park	2.70	2.70		
Totals:	200.94	71.47	38.87	90.60
Bothell owns development rights				
Wayne Golf Course front nine	46.00			46.00
Owned and controlled by King County				
Burke-Gilman Trail (trail portion west of Blyth Park)	12.10			12.10
East Norway Hill Park	25.10	14.10		11.00
Magnolia Dairy development rights	63.70			63.70
Sammamish River Park and Trail (trail portion east of Blyth Park)	28.40			28.40
Owned and controlled by Snohomish County				
Queensborough open space	7.90			7.90
Owned and controlled by Washington State				
DNR Shelton View property	26.80			26.80
Owned and controlled by City of Seattle				
Tolt Pipeline Trail	11.50			11.50
Private ownership, public use				
North Creek Valley Trail through business parks	11.50			11.50
Grand totals:	433.94	85.57	38.87	309.50

(Another parks facility enjoyed by Bothell residents but not owned by the City is the Northshore Pool, located at 9815 NE 188th Street. The Pool is located on land owned by the Northshore School District, but the facility itself is owned by King County and operated by the Northwest Center. As of the end of 2004, the future of the pool, and of aquatics facilities in general in Bothell and the County, was being explored in a study under the auspices of the Northshore Parks and Recreation Service Area (PRSA), with staff representation from Bothell, Kenmore, Woodinville and King County. If the City takes a direct role in owning, constructing, and/or operating a pool in the future, this facility will be added to the inventory, and to the six-year capital facilities finance plan.)

The adopted foundation level of service guideline is 4.5 acres of developed, operational and functional City parkland per 1,000 population. As of 2004, the actual LOS was 2.3 acres per 1,000. The parks and recreation LOS guideline in the original 1994 Imagine Bothell... Plan was 8.0 acres per 1,000 population, distributed among neighborhood parks (3 ac. / 1,000), community parks (2.5 ac. / 1,000) and regional parks (2.5 ac. / 1,000). Needs projections based on this LOS were found to be unattainably costly given Bothell's limited resources. Consequently, in the 2000 update of the Parks, Recreation and Open Space Action Program (PROSAP), a consultant was requested to review the existing LOS guideline and recommend one that would be more realistic. The consultant recommended a "foundation level of service" (FLOS), identified as "the base level in keeping with the socio-economic and political values of the community", of 4.5 acres per 1,000 population. The Parks and Recreation Board endorsed this FLOS, and it was subsequently adopted by the City Council.

Based on the adopted FLOS, the existing and projected needs for parks are as follows:

2004 City population	2004 parks need	2004 surplus or (deficit)	Projected 2025 population	Projected 2025 City parks need
30,930	139.1 ac	(67.5 ac)	42,836	192.6 ac

In order to move towards the foundation level of service, the City maintains and regularly updates a program of planned parks capital facilities improvements. This program is a part of the six-year capital facilities finance plan. The 2005-2010 finance plan includes eight parks projects:

1. Construction of Phase 1 improvements to Thrasher's Corner Regional Park (\$700,000);
2. Installation of synthetic turf at North Creek Field 4 (\$105,000);
3. Construction of improvements (playfield, volleyball and/or sports courts) at The Park at North Creek, on top of the King County DNR wastewater storage tank in the North Creek Valley (\$500,000)
4. Master planning for the Haynes property on SR 527 (\$40,000)
5. Construction of a trail link on the Kaysner property on the Sammamish River (\$50,000)
6. Renovation of the large picnic shelter at Blyth Park (\$42,500);
7. Updating of the capital facilities plan in the PROSAP (\$20,000); and
8. Construction of Phase 2 improvements to Cedar Grove Park (\$840,000).

The proposed timing of these projects is provided in the capital facilities finance plan, located in the Goals, Policies and Actions section of this element.

Potable Water Supply, Storage and Distribution Facilities

Four water purveyors serve the Bothell Planning Area - the City of Bothell, Alderwood Water and Wastewater District, Northshore Utility District and Woodinville Water District. Information in this section is taken from the most recent updates of the Bothell, Alderwood and Northshore water comprehensive plans. Woodinville serves only a very small portion of the Planning Area, and is not included in this discussion. Of necessity, more detail is provided on the Bothell water plan than on the plans of Alderwood or Northshore. For a map of public water systems, see **Figure CF-3**.

City of Bothell Water System

The information in this section is taken from the 2002 update of the City of Bothell Water System Comprehensive Plan (**Appendix M**). The City of Bothell water system serves most of the population within the King County portion of the City, plus a small part of the Snohomish County portion of the City. Following is an inventory of the major components of the Bothell water system.

Table CF-6
City water system inventory

Component	Location	Capacity or Length
Penn Park Reservoir	19900 100 Ave. NE	500,000 gal.
Maywood Hills Reservoir	20144 106 th Ave. NE	1,000,000 gal.
Bloomberg Reservoir	12811 NE 205 th St.	5,000,000 gal.
Norway Hill Reservoir (owned by NUD, but City may purchase up to 1,000,000 gal. per day)	16306 104 th Ave. NE	1,000,000 gal.
Maywood Hills Booster Station	10011 NE 195 th St.	2 x 500 gal per min.
North Creek Heights Booster Station	11022 NE 197 th St.	3 x 460 gal. per min.
Bloomberg Booster Station	12220 NE Hollyhills Dr.	2 x 500 gal. per min.
Morningside Booster Station	12811 NE 205 th St.	1 x 70 gal. per min. 2 x 140 gal. per min. 1 x 1,000 gal. per min. (fire flow purposes only)
Ductile iron pipe (4, 6, 8, 10, 12 and 16 inch diameter)	Various locations	250,624 lineal ft.
Asbestos cement pipe (4, 6, 8, 10 and 12 inch diameter)	Various locations	93,214 lineal ft.
Cast iron pipe (6, 8, 10, 12, and 14 inch diameter)	Various locations	13,673 lineal ft.
PVC pipe (2, 3, 4, 6, 8 and 12 inch diameter)	Various locations	8,377 lineal ft.
Galvanized iron pipe (2 inch diameter)	Various locations	393 lineal ft.
Steel pipe (4 and 6 inch diameter)	Various locations	325 lineal ft.
Copper pipe (2 inch diameter)	Various locations	51 lineal ft.
33 telemetry sites	Various locations	

Potable water supply

Bothell, Northshore and Woodinville all purchase water from the City of Seattle (Seattle Public Utilities, or SPU) via connections to the Tolt Pipeline, while Alderwood purchases water from the City of Everett.

The level of service guideline for water supply is as follows:

Comply with Washington State Department of Health requirements concerning provision for peak day demands and maintenance of drinking water quality. In accordance with the Growth Management Act, the City shall monitor water supply and withhold development approvals if development would cause the level of service to decline below the adopted standard. The City should explore alternative sources of water supply.

The City's current contract with SPU entitles Bothell to draw as much water as it needs from the Tolt Pipeline from September 1 to June 1 of a given year. During summer months, the City's agreement with SPU states that the instantaneous demand placed upon SPU by the City cannot exceed the 24-hour average by over 30 percent for any 15 minute period: any water taken beyond this 30 percent limit is subject to a demand violation. Bothell's current contract with SPU expires in 2011. The City is pursuing a renewal, but is also investigating potential alternate sources of supply.

One of these potential alternate sources of supply is the Snohomish River Regional Water Authority (RWA). The RWA in 1996 acquired a surface water right from the Weyerhaeuser Company that permitted withdrawal from the Snohomish River of 36,000,000 gallons per day. An as yet undetermined percentage of this withdrawal would be available for use by the City of Bothell. As of the end of 2004, an application to change the terms of the water right from manufacturing purposes to municipal purposes was pending with the Department of Ecology.

A second potential alternate source is an aquifer under Maywood / Beckstrom Hill. The City owns two wells in Penn Park which draw from this aquifer but have not been utilized for several decades. Preliminary tests indicate that these wells could potentially provide up to 700 gallons per minute, or roughly a million gallons per day. This would amount to two-thirds of the 2004 daily demand by users of the City's water system. As of the end of 2004 the City was conducting further water quantity and quality tests and performing a financial analysis to determine the feasibility of rehabilitating the wells for regular use.

The 2002 Water System Comprehensive Plan Update projected future water demand out to 2021 based on a 2.3 percent annual population growth rate. This assumed growth rate significantly exceeds the actual growth rate in recent years. The actual average annual population growth in the King County portion of Bothell between 2000 and 2004 was .2 percent. The forecasted annual growth rate for the King County portion of Bothell for the period 2003 - 2022 is about 1.3 percent.

Based on projected demand (at 2.3 percent annual population growth), the City's current contract with SPU, and prospects for continued supply from SPU and/or alternative sources of supply, the 2002 Water System Plan Update concludes, "The City has sufficient source, storage, and redundancy of supply to meet 20-year planning needs."

With respect to drinking water quality, state law regulates bacteriological contaminants, inorganic chemicals and inorganic physical parameters, volatile organic chemicals, synthetic organic chemicals, radionuclides and trihalomethanes. Minimum standards for water quality are specified in terms of Maximum Contaminant Levels. The City of Bothell is part of Seattle Public Utility's Regional Monitoring Plan.

The 2005-2010 capital facilities finance plan contains no projects related to water supply.

Potable water storage

Potable water storage requirements for the City of Bothell are determined according to the 1999 state Department of Health Water System Design Manual. The storage requirements are based on the sum of the following:

- Operational storage;
- Equalizing storage;
- Standby storage;
- Fire suppression storage; and
- Dead storage.

Operational storage is the volume of the reservoir devoted to supplying the water system while, under normal operating conditions, the source or sources supply are in “off” status. Total operational storage is 670,253 gallons.

Equalizing storage is typically used to meet daily demands which exceed the average daily and peak day demands. Total equalizing storage is 353,470 gallons.

Standby storage is provided in order to meet demands in the event of a system failure such as a power outage, an interruption of supply, or a break in a major transmission line. Total standby storage is 2,655,200 gallons.

Fire suppression storage is provided to ensure that the volume of water required for fighting fires is available when necessary. Total fire suppression storage is 1,290,000 gallons.

Dead storage is the volume of unusable water stored in the reservoirs because it is not available to all customers at a minimum pressure of 30 pounds per square inch. In the City’s water system, the entire Penn Park Reservoir is considered usable, while the Maywood Hill Reservoir has a dead storage level of 47.5 feet under fire flow conditions and 68 feet under normal conditions, and the Bloomberg Reservoir has a dead storage level of 5 feet. Total dead storage is 1,235,816 gallons.

Total required storage is 6,760,133 gallons, while total available storage is 7,500,000 gallons.

(Detailed analyses of the above are contained in the 2002 Water System Comprehensive Plan Update.)

With regard to compliance with Department of Health storage requirements, the 2002 Water System Comprehensive Plan Update concludes, “...the City has adequate storage capacity through the year 2021 in all pressure zones with the exception of the 452 zone (Maywood Hills). The storage deficiency in the Maywood Hills Reservoir is alleviated through the North Creek and Maywood Hills Booster Station, which can transfer surplus storage from the Penn Park and Bloomberg Reservoirs, or from excess capacity in the Northshore Utility District supply intertie.”

In accordance with the above, the 2005-2010 capital facilities finance plan contains no projects related to storage of potable water.

Potable water distribution

All of the water purveyors, Bothell included, depend on developer extensions for expansion of their systems. For new construction, water systems are designed to insure that minimum flow requirements can be met principally through the adequate sizing of pipes and the "looping" of mains. In some of the older residential portions of the existing systems, minimum fire flows cannot be provided due to existing undersized water mains. The Bothell Water Comprehensive Plan schedules these undersized lines for replacement.

The adopted level of service guideline concerning potable water distribution is as follows:

Comply with Washington State Department of Health requirements concerning minimum system pressure and fire flow.

The State Department of Health requires that water systems maintain a minimum pressure of 30 psi in the distribution system under peak hour demand conditions.

The 2002 Water System Plan Update modeled the distribution system under 2007 and 2021 peak hour demand conditions, and found the following:

"Under 2007 peak hour demands..., no deficiencies are identified. However, junctions near the Maywood Hills Reservoir are near minimum pressures under these conditions. The City is aware of these low pressure areas when the reservoir is drawn down to lower levels. To correct these low pressure problems, a new closed pressure zone with a booster station shall be installed to maintain system pressures during periods of normal and peak flows."

The Public Works Department has installed a pump at the Maywood Hills Reservoir which resolved the pressure issue and eliminated the need for the more complex approach described above.

With respect to fire flows, the Department of Health specifies that a water system should be designed to provide adequate fire flow under maximum day demand conditions, while maintaining a minimum system pressure of 20 psi. The City has adopted a minimum fire flow standard of 1,500 gallons per minute for two hours.

The 2002 Water System Plan Update identified seven fire flow deficiency locations within the City's water system. Six of these are due to undersized mains, while one is due to inadequate looping. These deficiencies are expected to be addressed via the City's annual water main replacement program.

The 2005-2010 capital facilities finance plan includes an allocation for water main replacement in each of the six years of the plan (\$1,800,000 total over six years).

Alderwood Water and Wastewater District

The information in this section is taken from the 2003 update of the Alderwood Water System Plan (**Appendix N**).

Alderwood Water and Wastewater District covers approximately 60 square miles, spanning from Puget Sound east to Highway 9, and from the King / Snohomish county line north to Paine Field in Everett. The District provides water directly to customers in the cities of Bothell, Brier, Mill Creek and Mukilteo, and in the unincorporated areas between those cities, and sells water wholesale to the cities of Edmonds, Lynnwood and Mountlake Terrace. Almost all of the portion of Bothell within Snohomish County is

served by Alderwood: the Water System Plan did not identify the number of customers within the city limits of Bothell.

The Alderwood water system consists of over 460 miles of pipelines, nine storage facilities, one booster pump station, four pressure zones, two water supply pump stations with a combined capacity of 50 million gallons per day, and an artesian well. Two of the storage facilities (Nike Tanks 1 and 2) are within the Bothell city limits, and one (Canyon Park Tank) is on the edge of the Bothell Planning Area. Nike Tanks 1 and 2 are located on 4th Avenue SW, north of 228th Street SW: Tank 1 has a capacity of 2.4 million gallons, while Tank 2 has a capacity of 3.5 million gallons. The Canyon Park tank, east of 45th Avenue SE at approximately 220th Street SE, has a capacity of 3.01 million gallons.

Potable water supply

From the Water System Plan:

“The District purchases all of its water from the City of Everett. Everett’s supply is the Spada Reservoir, east of Everett in the Cascades foothills. From the Spada Reservoir, water is conveyed to the Chaplain Reservoir, then treated at Everett’s filtration plant, and then conveyed to Everett through Transmission Main Nos. 2, 3 and 5 to Everett’s Reservoir Nos. 2 and 3. The District has two pump stations at Everett’s Reservoir No. 3 that then convey water from Everett, south through the District’s transmission mains to the District’s Reservoir Nos. 1, 2 and 3.

“In 2003, the Clearview transmission main and storage facility will provide the District with an additional source of supply directly from Everett’s Transmission Main No. 5 south to the eastern District boundary. These new facilities will increase the District’s supply capacity, improve service for existing customers, and improve overall supply reliability.

“Everett has recently reviewed its source of supply and concluded that it is sufficient to meet the forecast regional needs through 2050 and beyond. The City is planning transmission line improvements over the next 20 years that will maintain and/or improve supply capacity to meet their customers’ needs, including the District.”

With respect to water quality, the Plan reads, “The water quality of the regional surface water supply and the water delivered to the District through Everett has consistently met or exceeded all current federal, state and local health standards and regulations... This level of quality is maintained and regulated through a regular water-quality monitoring program conducted by the District’s Maintenance and Operations Department.”

Potable water storage and distribution

From the Water System Plan:

“Although the District’s water system was designed with sufficient capacity to provide adequate supply and service pressures under most conditions, much of the system’s capacity has been consumed in recent years by rapid growth.

“As part of this Plan, an updated hydraulic analysis model was developed and used to conduct an extensive evaluation of the condition and capacity of the District’s storage, transmission and distribution system. The evaluation was specifically geared towards identifying capacity shortfalls, excessively low and high pressure areas, high velocities and friction losses, and fire flow deficiencies.

“To maintain existing levels of service, specific transmission and distribution improvements were developed and documented in the Capital Improvement Program. Some of the future system deficiencies and recommended solutions identified through the evaluation include:

- “Excessive low pressures in the 635 zone between Lake Stickney and I-5. This area will be converted to the 724 Zone.
- Excessive high pressures in the 635 and 520 Zones in the Canyon Park area and north along SR 527. These areas will be converted to lower pressure zones after the Clearview facilities are brought on-line.
- Insufficient east-west transmission and distribution system capacity in the 635 Zone. Additional capacity is needed to convey water from the Clearview facilities to the west, which will be provided by a new 24-inch water main that will cross SR 527 and North Creek.”

Capital facilities finance plan

The District maintains and annually updates a 20-year water system Capital Improvement Program (CIP) which outlines specific improvements needed to maintain and improve the level of service for existing customers and meet the needs of future growth. With respect to the District’s ability to accommodate growth in Bothell, the water system plan states specifically that recent changes to Bothell’s land use and zoning (presumably referring to the 2002 amendments) were taken into account in the District’s demand forecasts.

The Major water system improvements identified in the CIP include the following:

- Completion of the Clearview transmission main and storage facility;
- Pressure zone improvements to increase low pressures and reduce overly high pressures;
- Providing an emergency power supply for the District’s source-of-supply pump stations;
- Recoating the interiors and exteriors of the water tanks;
- Constructing a new 24-inch east-west transmission line that will cross SR 527 and North Creek;
- Additional piping improvements to meet capacity needs and improve fire flows; and
- Replacing substandard system components.

Northshore Utility District

The information in this section is taken from the 2000 update of the Northshore Utility District Water System Comprehensive Plan (**Appendix O**).

The Northshore Utility District encompasses approximately 18.5 square miles. It is bordered by Lake Washington on the southwest, the King / Snohomish county border on the north, and roughly the ridge above the Sammamish River to the east. Residents in the westernmost and southernmost portions of the City of Bothell receive water service from the District.

District facilities include eight storage facilities, 244 miles of pipeline, 22 pressure zones, three booster pump stations, and eight interties with other districts or with cities. One of the storage facilities is within the Bothell city limits: the Westhill standpipe, located on 88th Avenue NE at approximately NE 191st Street, has a capacity of three million gallons. Two of the storage facilities are outside the city limits but within the Bothell Planning Area: the Norway Hill reservoir, located east of 104th Avenue NE at

approximately NE 162nd Street, has a capacity of five million gallons, while the Kingsgate reservoir, located at NE 160th Street and 124th Avenue NE, has a capacity of three million gallons.

The District analyzed system needs for a buildout scenario based on the plans and zoning as of 2000 of the jurisdictions or portions of jurisdictions served by the District, including Bothell. No substantial increases in designated density or intensity of land use within the portion of Bothell served by Northshore resulted from either the 2002 or 2004 amendments. Therefore, the buildout scenario for that part of Bothell served by Northshore would not have changed.

Potable water supply

From the Water System Plan:

“The District currently purchases all of its water from Seattle Public Utilities (SPU). Under normal operating conditions, the District’s water supply comes from a number of connections to the SPU’s Tolt Pipeline No. 1 and the Tolt Eastside Supply Line (TESSL). The District has an additional connection to SPU at the Maple Leaf pipeline. The TESSL interties both the Tolt and Cedar River sources along the east side of Lake Washington.”

As is the case with Bothell, Northshore expects to continue receiving water from SPU in the future but is exploring alternative water supply sources.

Potable water storage and distribution

From the Water System Plan:

“...all areas have sufficient storage for 2005 through build-out demand conditions except for the Westhill area. In order to meet DOH storage requirements, the Westhill area will need to have additional storage capacity available. The Inglemoor Hill Tank Farm has a surplus of over three million gallons through build-out that will be used to provide additional storage capacity to Westhill.”

“The District has tried to maintain a strong distribution system with good looping and fire flow capabilities.”

“Operations staff indicate that a majority of the District’s distribution line failures have been in their PVC lines. Although this pipe was primarily installed in the late 1970s and early 1980s and theoretically will not reach the end of its design life for over 25 years, much of this pipe is thin-walled and some has glued fittings. Pipe failures often occur where the pipe is in direct contact with large rocks or where glued fittings separate due to age.”

Capital facilities finance plan

Northshore maintains a six-year capital improvement plan (CIP). Projects on the current CIP which might affect the portion of the District within the Bothell city limits or planning area include the following:

- Alternate supply source development;
- Pipe replacement, particularly of PVC pipe;
- System looping projects; and
- Reservoir seismic upgrades.

According to the Plan, projects in the CIP “will most likely be funded by rates, connection charges, Public Works Trust Fund Loans and/or bonds”.

Wastewater collection and treatment facilities

Sanitary Sewage collection within the City's Planning Area is provided by four purveyors: the City of Bothell; the Alderwood Water and Wastewater District in Snohomish County; the Northshore Utility District in portions of King County; and the Woodinville Water District in portions of King County (see **Figure CF4**). Woodinville serves only a very small portion of the Planning Area, and is not discussed further in this section.

Sewage treatment is provided by King County Department of Natural Resources (KCDNR) through an intergovernmental agreement. Sewage from the Planning Area normally flows to KCDNR's West Point Treatment Plant in Seattle, but can be diverted to KCDNR's Renton Treatment Plant via a pump station in the North Creek Valley in Bothell. The West Point Treatment Plant provides an average wet weather capacity of 133 million gallons per day (mgd) and a peak hydraulic capacity of 440 mgd. The Renton Plant can handle 115 mgd of average wet weather flow and 360 mgd of peak flow.

King County has proposed a third treatment plant, termed “Brightwater”. The County Executive has identified a preferred location for this plant northeast of Bothell, on Route 9 immediately north of SR 522. This plant would have an initial capacity of 36 million gallons per day, with the capability for future expansion to accommodate 54 mgd. Conveyance lines for treated sewage would run through Bothell, approximately in alignment with NE 195th Street. As of the end of 2004, design work was proceeding on Brightwater, although final approval had not yet been granted by the King County Council.

City of Bothell wastewater collection

This section will be expanded following completion of the update of the Bothell Wastewater Comprehensive Plan, expected in 2005.

Bothell's wastewater collection system consists of 58 miles of gravity sewer line, four sewage lift stations, and 1,900 lineal feet of force main. The City has 19 sewer basins that either drain directly to KCDNR interceptors, or drain to lift stations that pump to interceptors. The City has 12 connections to KCDNR interceptors.

The adopted level of service guidelines for wastewater collection and treatment are as follows:

1. Collection: Meet 100 percent of Washington State Department of Ecology criteria for sewer works design.
2. Treatment: In accordance with current METRO plans, achieve and maintain secondary treatment, including at peak flow periods.

The 2005-2010 capital facilities finance plan includes two projects related to wastewater. One is for Brightwater mitigation improvements (\$4,000,000), and is actually likely to comprise several projects, (as of the end of 2004, no specific mitigation projects had yet been identified). The other project is the annual sewer replacement project (\$2,550,000 total over six years).

Alderwood Water and Wastewater District

Information in this section was taken from the 2000 update to the Alderwood Sanitary Sewer Comprehensive Plan (**Appendix P**).

The Alderwood wastewater service area encompasses almost 41 square miles and provides sewer service to portions of Bothell, Brier, Mill Creek, Lynnwood, Mukilteo and unincorporated Snohomish County. The collection system includes 14 lift stations and approximately 45 miles of sewer trunks. Alderwood's sewer service area is divided into five drainage basins, including three major basins - Swamp Creek, North Creek and Bear Creek. Alderwood collects wastewater from almost the entire portion of Bothell within Snohomish County.

All wastewater collected by Alderwood from the Bothell area flows south through trunk lines into King County for eventual treatment by King County Department of Natural Resources (KCDNR) at the West Point or Renton sewage treatment plants (in the future, sewage may also be treated by KCDNR's Brightwater plant).

The planning horizon for the Sewer Plan was 13 years, from 2000 to 2012, and was based on Snohomish County's population projections and estimates of additional population holding capacity for that period. However, because the consultant who prepared the Plan did not apply a market availability reduction factor, the population projection used for the Sewer Plan was 27 percent higher than the County's forecast. Regarding this difference, the Plan reads, "...designing trunk lines based on a higher forecasted population should provide conservatively sized conveyance facilities."

In contrast to the 2012 end-point to the Alderwood Sewer Plan, the 2004 Plan and Code Amendments have a planning horizon that extends to 2025. While it is highly unlikely that Alderwood would run out of sewage conveyance capacity by that time - particularly in view of the 27 percent overestimate of 2012 population related above - confirmation of that premise may have to await the District's next Plan update in two years.

Alderwood maintains and annually updates a six-year capital improvement plan for wastewater facilities. CIP projects within the Bothell Planning Area include the following:

- Replace 12-inch pipe with 18-inch pipe at 19th Avenue SE and 220th Street SE;
- Replace 21-inch pipe with 42-inch pipe along 19th Avenue SE and 214th Street SE;
- Replace 21-inch pipe with 42-inch pipe along North Creek between 208th and 214th Streets SE;

The Sewer Plan states that these and other capital projects would be funded by one or a combination of the following:

- Rate and miscellaneous revenue;
- General facility charges;
- Capital reserves;
- Revenue bonds; and
- Loans and grants.

Northshore Utility District

Information in this section was taken from the Northshore Utility District 2000 Wastewater Comprehensive Plan (**Appendix Q**).

The Northshore Utility District (NUD) corporate boundary encompasses approximately 11,860 acres. The sanitary sewer service boundary encompasses approximately 11,280 acres, of which about 10,200 acres are currently sewered. The District serves the west and south parts of the City of Bothell within King County: the estimated number of Bothell residents within NUD as of 2000 was 3,839. Unsewered portions of the Bothell Planning Area within the NUD corporate boundaries comprise properties located along 88th Avenue NE, from approximately the NE 199th Street gridline north to the County line; properties located west of 88th from NE 190th Street north to the NE 192nd Street gridline; and scattered properties at the south end of Westhill.

Northshore owns and operates a wastewater collection system consisting primarily of collection sewers, trunk sewers, lift stations and force mains. NUD's collection system comprises approximately 216 miles of gravity sewer pipe ranging in size from 8 to 30 inches in diameter. Approximately 85 percent of sewer pipe is 8-inch. The District operates and maintains 12 lift stations and four grinder pump units. Two of the lift stations are within the Bothell Planning Area, both east of I-405 and north of NE 160th Street.

All wastewater collected by Northshore from the Bothell area is treated by King County Department of Natural Resources (KCDNR) at the West Point or Renton sewage treatment plants (in the future, sewage may also be treated by KCDNR's Brightwater plant).

A system evaluation identified .96 mile of pipe as currently flowing more than 80 percent full (considered to be at capacity) during peak flows; an additional 1.1 miles of pipe as reaching capacity in 2006; and an additional .43 mile of pipe as reaching capacity in 2020. Three lift stations were identified as undersized to transport future flows, and the evaluation determined that two other lift stations could be eliminated by installing gravity pipe.

The NUD Wastewater Comprehensive Plan contains a capital improvement plan (CIP) to address system needs from 2000 through 2020. Potential funding sources identified in the CIP include revenue bonds, Public Works Trust Fund loans, developer financing, connection charges and local improvement districts.

CIP projects within the Bothell Planning Area include replacement or upgrading of pipe in various locations and the elimination of a lift station in favor of gravity lines.

Surface Water Management Facilities

The information in this section is based on the 1994 City of Bothell Comprehensive Stormwater Master Plan (**Appendix R**). As of the 2004 Plan and Code Update, the Surface Water Comprehensive Plan was being updated. Approval of the Plan is expected in 2005: information from the plan will be incorporated in the next update of this Capital Facilities Element.

The majority of stormwater runoff in the Bothell area discharges to North Creek, Horse Creek, the Sammamish River, or Swamp Creek. Horse Creek is the only basin located entirely within the current city limits.

Stormwater runoff in these basins and the tributaries thereto is primarily conveyed in well defined open channels with cross culverts at street crossings. As of 1994 it was estimated that within the Bothell city limits there were approximately 247,000 linear feet (46.8 miles) of underground pipes, compared to 443,500 linear feet (84.0 miles) of open channels and streams. There were also an estimated 6,200 catch basins.

The 1994 Master Plan identified numerous stormwater related problems in the Planning area, most of them the result of inadequate systems or the lack of formal conveyance systems. These are summarized by type as follows:

- Insufficient pipe and culvert capacities;
- Poor design of detention ponds;
- Lack of maintenance of detention ponds, resulting in loss of capacity due to silting;
- Bank erosion and sedimentation in most open channels, including North Creek, Little Swamp Creek and Horse Creek;
- Seasonal flooding from sheet flow and inadequate detention and conveyance facilities.

The 1994 Master Plan proposed alternative levels of stormwater capital improvements to address the above-described problems. It also addressed non-structural measures such as regulatory changes, water quality monitoring, conveyance system maintenance, enforcement of violations, public involvement and interlocal agreements.

The 2005-2010 capital facilities finance plan includes four surface water management projects. These include the following:

1. Sammamish River education kiosks (\$187,500);
2. Local hazardous waste management program (\$57,000);
3. Annual storm water replacement program (\$1,800,000); and
4. Annual drainage pond rehabilitation program (\$900,000).

Public schools

Public education in the Bothell Planning Area is provided by the Northshore School District, the University of Washington, Bothell, and Cascadia Community College.

Northshore School District No. 417 provides public K-12 education throughout the Planning Area. The following **Table CF-7** comprises an inventory of school district facilities within the Planning Area (See **Figure CF-5**):

Table CF-7 Northshore School District facilities inventory	
Facility name and type	Location (see Figure CF-5)
Canyon Creek Elementary	18603 Bothell Way NE
Crystal Springs Elementary	21615 9th Avenue SE
Frank Love Elementary	303 224th Street SE
Maywood Hills Elementary	19510 104th Avenue NE
Shelton View Elementary	23400 5th Avenue W
Westhill Elementary and Sorenson Special Ed. Center	19515 and 19705 88th Avenue NE
Woodin Elementary	12950 NE 195th Street
Woodmoor Elementary	12225 NE 160th Street
Canyon Park Junior High	23723 23rd Avenue SE
Northshore Junior High	12101 NE 160th Street
Skyview Junior High	21404 35th Avenue SE
Bothell Senior High	18125 92nd Avenue NE
Secondary Alternative School (located in W. A. Anderson)	18603 Bothell Way NE
Ricketts Building (plus related small office buildings)	18315 Bothell Way NE
Bus storage and maintenance facility	98th Avenue NE and Thorsk St
Pop Keeney Athletic Complex	98th Avenue NE and NE 188th St
Northshore School District Administrative Center	3330 Monte Villa Parkway

It should be noted that a number of students who reside within the Planning Area attend schools outside the Planning Area boundaries, such as Moorlands Elementary School, Kenmore Junior High School, and Inglemoor High School. Similarly, there are a number of students living outside the Planning Area who attend the schools listed above.

As required by the Growth Management Act, the School District maintains a capital facilities plan, which is updated annually. The plan provides the District, King County, Snohomish County, and affected cities - including Bothell - with a description of the facilities needed to accommodate anticipated levels of service over the next 20 years, and a more detailed schedule and financing program for capital improvements over the next six years.

Components of the District's plan include the following:

- Student enrollment projections;
- "Standards of Service", measured in average numbers of students per classroom at the elementary, junior high and high school levels (with variations for special and vocational educational students, and for students housed in portables;)
- An inventory of capital facilities owned by the District;
- Projected facilities needs, including both growth related projects and non-growth-related projects (such as building modernization or field renovation);
- A methodology for calculating impact fees, and the resulting fee amounts.

The School District's capital facilities plan, as amended yearly, is adopted by reference as part of the *Imagine Bothell... Comprehensive Plan* for the purpose of providing a policy basis for collection of school impact fees and as a reference for the consideration of whether or not appropriate provision is made for schools and school grounds when reviewing applications for subdivisions and residential planned unit developments. As such, the level of service guidelines contained in the District's capital facilities plan are adopted by reference as well. The District's plan comprises **Appendix S**.

To the extent the School District's Capital Facilities Plan conflicts with other goals or policies of the *Imagine Bothell...Comprehensive Plan*, such other goals and policies shall prevail. The adoption of the School District's Capital Facilities Plan is not intended to control or direct the City of Bothell's land use planning.

Post-secondary public education within the Bothell Planning Area is provided by the University of Washington, Bothell (UWB) and Cascadia Community College (CCC). The UWB and CCC share a campus at the southern end of the North Creek Valley.

As of December 1, 2004, combined campus enrollment was close to 3,000 full time equivalent (FTE) students. A condition of the Planned Unit Development which permitted the campus caps enrollment at 3,000 FTE's until direct access to SR 522 via a new interchange is constructed (the campus currently has access only on Beardslee Boulevard). Once the interchange - known as the South Access - is built, further expansion of facilities may proceed (subject to approval of the state legislature) to accommodate more students. Build-out enrollment is expected to be around 10,000 FTE students. Construction of the interchange is expected in the 2006-2008 timeframe. Construction of additional campus buildings depends on allocation of sufficient funding from the state legislature.

As of the end of 2004, neither the UWB nor CCC had a capital facilities plan which scheduled and identified funding for construction of future classroom buildings, parking garages and other facilities. This is in large part due to the uncertainty of amount and timing of appropriations from the state legislature. However, in anticipation of completion of the South Access and the attendant lifting of the present 3,000 FTE enrollment cap, the institutions have begun work on a joint master plan. When the master plan is completed it will be incorporated in this Plan by reference.

Libraries

The King County Library System (KCLS) provides library services within the Planning Area, including that portion of the City within Snohomish County. KCLS is an independent taxing district. Unincorporated territory outside the City and Planning Area in Snohomish County (since the two are coterminous in Snohomish County) is served by the Sno-Isle Regional Library System.

There is one library within the Planning Area. The Bothell Regional Library is located at 18215 98th Avenue NE and contains about 22,500 square feet (see **Figure CF-5**). Library services include circulation of books, magazines, video tapes and DVDs, audio tapes and CDs, and reproductions of art works; reference, government, business and technology services; computer usage; children, adult and family programs; and availability of a meeting room for community use.

The City has adopted by reference the library district's capital facilities plan and the level of service guidelines and other policies which drive library improvements (**Appendix T**).

Northshore Senior Center

The Northshore Senior Center, located at 10201 E. Riverside Drive, provides a gathering place for the area's seniors for socialization, education and recreation. Across the street from the Senior Center an affiliated Health and Wellness Center, under construction at the end of 2004, will provide therapy and day care for the frail elderly when completed.

Construction of both facilities was funded primarily by voter-approved bond issues under the auspices of the Northshore Parks and Recreation Service Area (PRSA), a special taxing district.

Senior Center space needs will grow as the senior population in Northshore increases, but to date the PRSA Board has not established level of service guidelines to direct future expansions or construction of new facilities. If and when such guidelines are adopted, they will be incorporated in a future update of this element.

Capital Facilities Element Goals, Policies and Actions, including Six-Year Capital Facilities Finance Plan

Goals

- CF-G1 To enhance the quality of life in Bothell through the planned provision of public capital facilities, either directly by the City or via coordination with other public entities.
- CF-G2 To ensure that public facilities necessary to support new development are adequate to serve the development at the time the development is available for occupancy and use, based on locally adopted level of service standards and guidelines and in accordance with state law.
- CF-G3 To achieve consistency in capital facilities level of service standards and guidelines within the Bothell planning area for each public service provided by multiple purveyors.
- CF-G4 To achieve consistency in capital facilities level of service standards and guidelines between the Bothell planning area and surrounding jurisdictions' planning areas within the designated urban growth area.
- CF-G5 To ensure the efficient and equitable siting of essential regional capital facilities through cooperative and coordinated planning with other jurisdictions within the region.
- CF-G6 To ensure that new growth and development pay a proportionate share of the cost of new facilities needed to serve such growth and development.

Policies

CF-P1 City Offices level of service guideline.

For the purposes of calculating costs for the capital facilities finance plan, a level of service guideline of 1,280 square feet of office space per 1,000 population should be utilized. However, prior to authorization of construction of new offices, the level of service guideline should be reassessed to determine whether it is still appropriate, or whether a different square footage per 1,000 population or a different methodology would more accurately reflect need.

CF-P2 City maintenance shops level of service guideline.

For the purposes of calculating costs for the capital facilities finance plan, a level of service guideline of 1,460 square feet of maintenance shop space per 1,000 population should be utilized. However, prior to authorization of construction of new maintenance shops, the level of service guideline should be reassessed to determine whether it is still appropriate, or whether a different square footage per 1,000 population or a different methodology would more accurately reflect need.

CF-P3 Fire and Emergency Medical Services capital facilities level of service guideline.

Maintain or achieve a capital facilities level of service for fire and emergency medical services of 9,282 persons per firehouse. However, prior to authorization of construction of new Fire and EMS capital facilities, the level of service guideline should be reassessed to determine whether it is still appropriate, or whether a different population per firehouse or a different methodology would more accurately reflect need.

Fire and Emergency Medical Services operational level of service guideline.

Maintain or achieve a minimum operational level of service of a five minute response time to 50 percent of all Fire and Emergency Aid calls. Incorporate this guideline in a six-year financing plan for fire and emergency medical services.

A Fire Master Plan should be developed to direct future fire and emergency medical service capital facilities improvements.

CF-P4 Police capital facilities level of service guideline.

Maintain or achieve a capital facilities level of service for police service of 900 square feet of facility per 1,000 population.

Police operational level of service guideline.

Maintain or achieve average response times of five minutes to emergencies and 30 minutes to non-emergencies.

CF-P5 Parks level of service guideline.

Achieve and maintain a foundation level of service of 4.5 acres of developed, operational and functional parkland per 1,000 population. A foundation level of service implies a base or threshold level that satisfies the basic recreational needs of the community.

CF-P6 Potable Water Supply, Storage and Distribution level of service guidelines.

Potable Water Supply. Comply with Washington State Department of Health requirements concerning provision for peak day demands and maintenance of drinking water quality. In accordance with the Growth Management Act, the City shall monitor water supply and withhold development approvals if development would cause the level of service to decline below the adopted standard. The City should explore alternative sources of water supply.

Potable Water Storage. Comply with Washington State Department of Health requirements for operational, equalizing, standby, fire suppression and dead storage.

Potable Water Distribution. Comply with Washington State Department of Health requirements concerning minimum system pressure and fire flow.

The City of Bothell Water System Comprehensive Plan is adopted as part of this Comprehensive Plan. Further, the portions of the water plans of the Alderwood, Northshore, and Woodinville water and sewer districts which affect the Bothell Planning Area are adopted as parts of this Comprehensive Plan.

CF-P7 **Wastewater collection and treatment guidelines.**

Wastewater collection. Comply with Washington State Department of Ecology criteria for sewer works design.

Wastewater treatment. Achieve and maintain secondary treatment, including at peak flow periods.

The City of Bothell Sanitary Sewer System Plan, and the City of Bothell Sanitary Sewer System Plan Growth Management Act Supplement are adopted as parts of this Comprehensive Plan. Further, the portions of the sanitary sewer system plans of the Alderwood, Northshore, and Woodinville water and sewer districts which affect the Bothell Planning Area are adopted as parts of this Comprehensive Plan.

CF-P8 **Surface water management level of service guidelines.**

Surface water conveyance facilities. Accommodate 25-year, 24-hour storm event.

Surface water detention facilities. Accommodate 100-year, 24-hour storm event at a 10-year release rate.

The City of Bothell Stormwater Master Plan is adopted as a part of this Comprehensive Plan.

CF-P9 **Schools level of service guidelines.**

The City adopts by reference the guidelines for primary and secondary education levels of service set forth in the Northshore School District's capital facilities plan, as adopted and periodically amended by the Northshore School District Board of Directors.

Support the collection of school impact mitigation fees based on the methodology contained in the School District Capital Facilities Plan.

The School District's capital facilities plan, as amended yearly, is adopted by reference as part of the *Imagine Bothell...Comprehensive Plan* for the purpose of providing a policy basis for collection of school impact fees and as a reference for the consideration of whether or not appropriate provision is made for schools and school grounds when reviewing applications for subdivisions and residential planned unit developments. The District's plan comprises **Appendix S.**

To the extent the School District's Capital Facilities Plan conflicts with other goals or policies of the *Imagine Bothell... Comprehensive Plan*, such other goals and policies shall prevail. The

adoption of the School District's Capital Facilities Plan is not intended to control or direct the City of Bothell's land use planning.

The City supports the continued growth of the University of Washington, Bothell (UWB) and Cascadia Community College (CCC) to their projected combined buildout enrollment of 10,000 full-time equivalent students. As of the 2004 Plan Update, the UWB and CCC were beginning work on a joint master plan providing for construction of facilities to accommodate the buildout enrollment. At such time as the two institutions complete this joint master plan, it shall be incorporated in the *Imagine Bothell...* Comprehensive Plan by reference. However, to the extent that the joint master plan conflicts with other goals or policies of this Comprehensive Plan, such other goals and policies shall prevail. The incorporation of the institutions' joint master plan is not intended to control or direct the City of Bothell's land use planning.

CF-P10 Libraries level of service guideline.

The City adopts by reference the guidelines for levels of library service set forth in the King County Library System's capital facilities plan, as adopted and periodically amended by the King County Library System Board of Directors.

However, to the extent that the Library System's capital facilities plan conflicts with other goals or policies of this Comprehensive Plan, such other goals and policies shall prevail. The incorporation of the Library System's capital facilities plan is not intended to control or direct the City of Bothell's land use planning.

CF-P11 Maintain an inventory of existing capital facilities owned by public entities (see Section 1 of this element). This inventory shall include the locations and capacities of such facilities, and shall be updated annually or bi-annually.

CF-P12 Project needed capital facilities based on adopted level of service standards and guidelines and forecasted growth in accordance with the land use element of the comprehensive plan (see Section 1 of this element). This projection shall be updated annually or bi-annually.

CF-P13 Maintain at least a six-year plan to finance needed capital facilities within projected funding capacities (see CF-A1). The plan shall clearly identify sources of public money for capital facilities. If projected funding is inadequate to finance projected capital facilities needs based on adopted level of service standards and guidelines and forecasted growth, adjustments shall be made to levels of service standards and guidelines, the land use element, or both, to achieve a balance between funding capacities and needed facilities. The finance plan shall be updated annually or bi-annually.

CF-P14 Coordinate with other public entities which provide public services within the Bothell planning area in the development of consistent level of service standards and guidelines.

CF-P15 Coordinate with other public entities which provide public services outside the Bothell planning area but within the designated urban growth area.

CF-P16 Collaborate with other jurisdictions within the region in the development of common criteria for the evaluation of siting proposals for public capital facilities of a countywide or statewide nature (see Land Use Element). These criteria shall include but not be limited to efficiency

and effectiveness of service delivery; environmental, societal, and economic impacts on the host community; regional growth objectives; and geographic distribution of such facilities.

- CF-P17 Develop and adopt new impact fees, or refine existing impact fees, in accordance with the Growth Management Act, as part of the financing for public facilities. Such financing shall provide for a balance between impact fees and other sources of public funds and shall not rely solely on impact fees. Public facilities for which impact fees may be collected shall include public streets and roads; publicly owned parks, open space and recreation facilities; school facilities; and City fire protection facilities.
- CF-P18 In accordance with the Growth Management Act, impact fees shall only be imposed for system improvements which are reasonably related to the new development; shall not exceed a proportionate share of the costs of system improvements reasonably related to the new development; and shall be used for system improvements that will reasonably benefit the new development.
- CF-P19 Identify deficiencies in public facilities serving existing development, based on adopted level of service standards and guidelines, and the means and timing by which those deficiencies will be eliminated.

Actions

- CF-A1 The 2007-2013 City of Bothell Capital Facilities Plan is adopted by reference as the combined transportation and capital facilities six-year finance plan of the City, in compliance with the Growth Management Act.
- CF-A2 Regularly update the capital facilities inventory, needs projections, and finance plan. Monitor capital facilities for adherence to adopted level of service standards and guidelines. In accordance with the Growth Management Act, adopt regulations prohibiting development approval if water supply declines below the adopted level of service standard.
- CF-A3 Adopt or amend ordinances as necessary to enable collection of impact fees for qualifying system improvements.
- CF-A4 Complete negotiations with other jurisdictions to develop consistent level of service standards and guidelines.