

SECTION E: CAPITAL FACILITIES PLAN



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SECTION E: CAPITAL FACILITIES PLAN

This Capital Facilities Plan (CFP) contains all the elements required by Washington law for capital facilities plans that comply with Washington's Growth Management Act.

Purpose

Capital facilities are needed to support current development and future growth. They can include:

- roads
- water,
- sewers,
- stormwater,
- parks and open space,
- garbage disposal and recycling, and
- government buildings which house public services, such as law enforcement, fire protection, libraries and schools.

This CFP includes the transportation, water, sewer, and stormwater facilities that will be needed in the Puget Sound Industrial Center (PSIC) in order to support the preferred development plan. No other public facilities were identified as being needed in PSIC to support the Subarea Plan.

This CFP is developed in conjunction with, and is part of, the PSIC Subarea Plan and it is consistent with the requirements of the Growth Management Act (GMA).

The purpose of the CFP for PSIC is to provide adequate public facilities consistent with the development plan of the PSIC Subarea Plan. Careful planning and sound fiscal policies will provide the needed facilities that achieve and maintain the City of Bremerton's standards for level of service concurrent with, or prior to, the impacts of development.

Growth Management Act

The CFP is required by Washington's GMA. The GMA requires the CFP to identify specific facilities, include a realistic financing plan, and make adjustments to the plan if funding is inadequate.

The GMA requirements for the CFP are set forth in RCW 36.70A.070(3),

Each comprehensive plan shall include a plan, scheme, or design for ... the following:

A capital facilities plan element consisting of: (a) An inventory of existing capital facilities owned by public entities, showing the locations and capacities of the capital facilities; (b) a forecast of the future needs for such capital facilities; (c) the proposed locations and capacities of expanded or new capital facilities; (d) at least a six-year plan that will finance such capital facilities within projected

funding capacities and clearly identifies sources of public money for such purposes; and (e) 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.

Constraints on Planning for SKIA's Facilities

Some capital facilities plans are based on very specific growth plans. The resulting CFP contains specific facility improvements to support the growth plan. The financing plan is also detailed because specific funding sources can be matched to the timing and location of each facility project.

The CFP for PSIC is a general plan, not a specific plan, for the following reasons:

- PSIC is a very large area with significant portions that are not yet developed. The next development project could occur at many different locations in PSIC. This makes it difficult and risky to determine precisely where to provide facilities, and to estimate its cost.
- PSIC contains one of eight Manufacturing Industrial Centers (MIC) designated by the Puget Sound Regional Council. Within the designated MIC, development must be primarily manufacturing or other industrial uses. This provided a focus for planning, but limits the ability to include other uses, such as commercial, general office, or residential.
- PSIC also contains a mixed-use area, located south of Lake Flora Road, that is not part of the designated MIC. In this area, commercial and general office uses are anticipated.
- The funding for the preparation of this Subarea Plan is from a grant that included specific goals and requirements for the plan to address greenhouse gases and other environmental concerns. This provided an important focus, and created opportunities for some approaches to the plan, but also constrained other alternatives.

Organization of the CFP

The capital facilities plan for the PSIC Subarea Plan contains the following:

Development Assumptions

The Development Assumptions section summarizes the type and planned amount of development in PSIC. The CFP is designed to provide adequate public facilities for the planned development.

Transportation, Water, Sewer, and Stormwater

Each of the four types of public facilities is presented in a separate section that contains the following three subsections:

- Inventory of Existing Facilities

This section summarizes the current public facilities that are described in more detail in the existing conditions sections of the SKIA (South Kitsap Industrial Area) EIS.

- Forecast of Future Needs

This section summarizes the need for capital improvements that are described in more detail in the mitigation sections of the SKIA EIS.

- Capital Projects

This section lists the capital improvements that will eliminate existing deficiencies, make available adequate facilities for future growth, and repair or replace obsolete or worn out facilities.

Financing Plan

The Financing Plan section addresses the question of who will pay for PSIC facilities and lists the funding sources that can pay for needed capital improvements.

Coordination Among Land Use, CFP and Financing Plan

Strategy CF 2.5 in Section A addresses the statutory requirement to reassess the land use element if probable funding falls short.

CF 2.5 If projected funding is inadequate to finance needed capital facilities that provide adequate levels of service, the level of service, the planned growth, and/or the sources of revenue will be adjusted to maintain a balance between available revenue and needed capital facilities.

DEVELOPMENT ASSUMPTIONS

State law requires the CFP to include an analysis of future needs. The CFP is also required to include capital improvement projects and funding that address the future needs. The needs and projects must be consistent with the proposed land use and development plan.

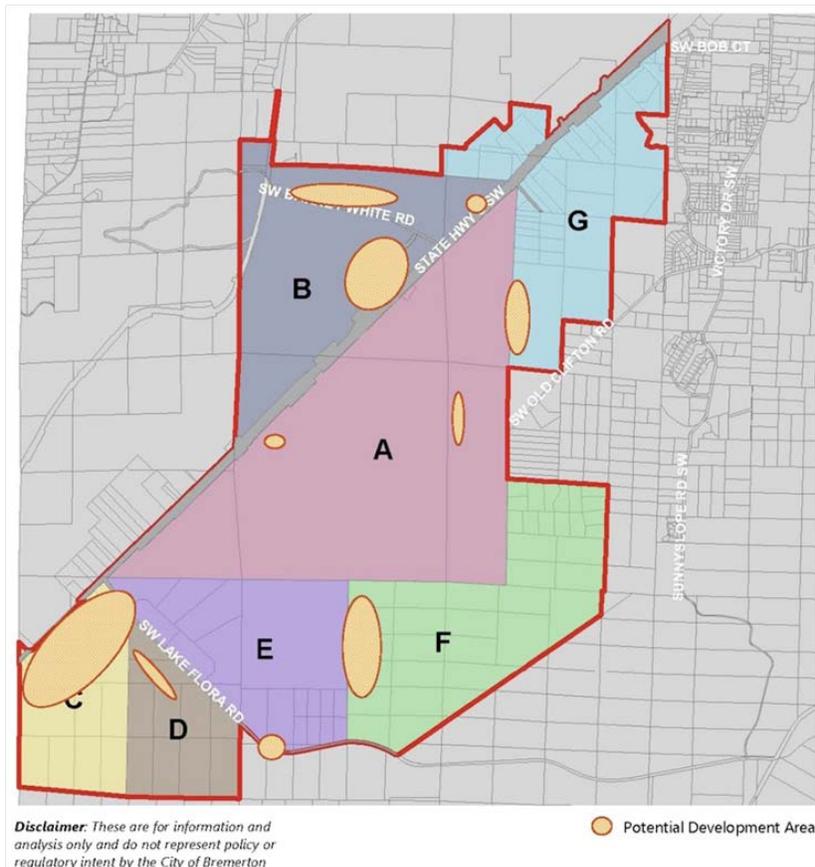
Table E-1 summarizes the distribution of the new jobs, buildings and developed acreage among seven analysis areas within the PSIC site (see Figure E-1 for the analysis areas). The distribution among the analysis areas was developed in order to identify the general location of development within PSIC so that estimates could be prepared for roadway, water, sewer and stormwater projects. The allocation among the seven areas is narrowed a bit more by identifying highly generalized locations of development within each analysis area. These locations appear as "bubbles" on maps in the roadway, water and sewer sections of this CFP. The bubbles are for general planning purposes, and are not intended to indicate specific parcels that will be developed, or others that will not be developed. Development within each area could occur on different land within the area without significantly affecting the estimated quantity and cost of roads, water and sewer facilities.

Table E-1: Growth by PSIC Analysis Area

PSIC Development Analysis Area	Employment	Acres Developed ¹	Square Feet of Buildings ²
A	500	23	350,000
B	1,500	69	1,175,000
C	1,500	69	775,000
D	400	18	225,000
E	850	39	425,000
F	1,150	53	575,000
G	600	28	325,000
Total	6,500	299	3,850,000

1. The Developed Acres column is intended to show the projected total acres of developed land within each analysis area.
2. The Square Feet of Buildings column is intended to show the projected total estimated square feet of developed building area in each analysis area.

Figure E-1: Analysis Areas and Development Assumptions



Future employment growth is expected to be primarily industrial in nature with two notable exceptions:

- Areas in the designated MIC may contain up to 20% of employment as supporting retail/business services.
- The area south of Lake Flora Road (Areas C and D) is designated as a mixed use development with a blend of outlet center, entertainment center, and office uses. The retail development would serve populations in a 25 to 75 mile trade area.

The development and employment projections contained in the Subarea Plan are the basis for the CFP's analysis of future needs, and the capital improvements projects that will serve those needs.

TRANSPORTATION

Inventory of Existing Facilities

The following is a summary of the existing transportation facilities that are described in more detail in the SKIA EIS (see Section 3.6 Transportation).

Roadway System

State Route (SR) 3 is the principal north/south roadway on the Kitsap Peninsula and links US 101 near Shelton to SR 104 at the Hood Canal Bridge.

SR 16 is a major freeway that connects the Bremerton area with Tacoma and I-5 to the east.

Lake Flora Road is a two-lane county road that extends between SR 3 at the southern end of the PSIC site to SR 16, approximately 8 miles east of the PSIC site.

Imperial Way serves as the primary access roadway for Bremerton National Airport and the Olympic View Industrial Park. West of SR 3.

Sunnyslope Road is a two-lane county road that primarily serves the rural residential area located to the northeast of the Bremerton National Airport.

Old Clifton Road is a two-lane road that extends from the eastern edge of the Bremerton National Airport to SR 16 at an interchange located about two miles south of the SR 3 interchange.

Cross SKIA Connector is a new two-lane road that is that extends south from SR 3 to the property line at Bremerton National Airport.

Transit, Bicycle, and Pedestrian System

The transit, bicycle, and pedestrian systems are very limited within the study area. Mason County Transit provides fixed route transit service between Belfair and the Bremerton Ferry terminal; however, the transit route travels along Old Belfair Highway and does not provide any transit service to the PSIC site. Kitsap Transit does not have any bus routes near the site.

Kitsap Transit operates a large vanpool program; however, there are no vanpools with any destinations within the PSIC area.

Kitsap County designates Lake Flora Road and Glenwood Road as bike routes between SR 3 and Lider Road.

Freight Rail

There is a freight railroad that parallels the west side of SR 3 through the study area. The majority of the rail traffic on this route serves the military installations at Bremerton and Bangor.

Forecast of Future Needs

The following is a summary of the future transportation needs that are described in more detail in the SKIA EIS (see Section 3.6 Transportation).

City of Bremerton Comprehensive Plan LOS Standard

The City of Bremerton's Comprehensive Plan defines the City's level of service (LOS) standards as D for all roadways and intersections in the study area.

Roadway Improvements Needed for Existing Conditions

The signalized intersection of SR 3 / SR 16 / Sam Christopherson Avenue operates at LOS E. The two unsignalized intersections at the SR 16 interchange with Old Clifton Road perform at LOS F.

Internal to the PSIC area, the Port of Bremerton Cross SKIA Connector Phase 1 has been completed from SR 3 to the east boundary of the airport. The port is currently pursuing a variety of funding sources to extend the road south to Lake Flora Road. The Cross SKIA Connector is assumed to be constructed south to Lake Flora Road. (See Figure A-2)

In addition to the Cross SKIA Connector, other internal roadways, sidewalks, bicycle lanes, and trails will have to be constructed to support the future development.

Roadway Improvements Needed Because of Growth

The following seven intersections are expected to operate at an undesirable LOS (i.e., LOS E or F) under 2030 conditions:

- SR 3 / NE Clifton Lane
- SR 3 / Lake Flora Road
- SR 3 / Imperial Way
- SR 3 / Sunnyslope Road
- SR 3 / SR 16 / Sam Christopherson Avenue
- Old Clifton Road / SR 16 Eastbound Ramps
- Old Clifton Road / SR 16 Westbound Ramps

Poor traffic operations can generally be mitigated if the following improvements are implemented:

- Construct the Belfair Bypass
- Widen SR 3 to four lanes from a point south of Lake Flora Road to SR 16 and install traffic signals at the Lake Flora Road and Sunnyslope Road intersections
- Widen Lake Flora Road between SR 3 and the SKIA Connector Road
- Grade separate the northbound and southbound SR 3 movements at SR 3 / SR 16 / Sam Christopherson Avenue intersection
- Implement minor intersection widening and signalization at the Old Clifton Road / SR 16 ramp intersections

Details on specific mitigation measures are provided below.

Belfair Bypass – WSDOT has identified the Belfair Bypass as a high priority project to relieve traffic congestion near the PSIC site. The Belfair Bypass would construct a new segment of SR 3 east of and parallel to the existing alignment to avoid the congested intersections in Belfair and provide an alternate and less congested route. As part of this project, the traffic congestion at the SR 3 / NE Clifton Lane intersection road will be improved, but not to a LOS of D or better. In addition, this project would likely include improvements at the SR 3 / Lake Flora Road intersection, improving its operations to acceptable levels.

SR 3 / NE Clifton Lane – The only intersection configuration that improves this intersection to LOS D or better is the addition of northbound and southbound through lanes on “Old SR 3.” However additional lanes are inconsistent with the current Belfair Area Widening and Safety Improvements project (currently funded for construction in 2012) to add a two-way left turn lane on SR 3 south of this intersection, and may be infeasible due to right-of-way impacts and the configuration of the railroad undercrossing located north of Belfair. While WSDOT has not ruled out additional improvements at this location, constructing lanes beyond what is identified in the Belfair Area Widening and Safety Improvements plan is not considered as part of this CFP for PSIC.

SR 3 / Imperial Way – Widening SR 3 to four through lanes at this intersection will be required for this intersection to operate at LOS D.

SR 3 / Sunnyslope Road – Widening SR 3 to four lanes at this intersection along with signalization will allow the intersection to operate at LOS D.

SR 3 / SR 16 / Sam Christopherson Avenue – All interim improvements including additional turning lanes and through lanes on SR 3 still result in LOS F at this location. Therefore full mitigation of the traffic operations impact will require grade separation of this intersection.

Old Clifton Road / Tremont Street / SR 16 EB Ramps – Signalizing this intersection and adding a dedicated right-turn lane for eastbound vehicles and a dedicated left turn lane for westbound vehicles results in an acceptable LOS D.

Old Clifton Road / Tremont Street / SR 16 WB Ramps – Signalizing this intersection with the current lane geometry results in LOS B operations.

In addition to existing intersections, there are five new access intersections assumed. The list below describes each of the intersections:

- New Intersection: Analysis Area C and SR 3. This intersection is necessary to provide access to Analysis Area C and is located southwest of the existing Lake Flora Road / SR 3 intersection. (Identified as Intersection 12 in the SKIA EIS Section 3.6.10, SKIA Site Access Evaluation.)
- New Intersection: Analysis Area C/D and Lake Flora Road. This intersection is necessary to provide access to parts of Analysis Areas C and D and is located southeast of the existing Lake Flora Road / SR 3 intersection. (Identified as Intersection 13 in the SKIA EIS Section 3.6.10, SKIA Site Access Evaluation.)
- New Intersection: Analysis Area E/F and Lake Flora Road. This intersection is necessary to provide access to parts of Analysis Areas E and F and is located southeast of the existing Lake Flora Road / SR 3 intersection. (Identified as Intersection 14 in the SKIA EIS Section 3.6.10, SKIA Site Access Evaluation.)
- New Intersection: Cross-SKIA Connector and Lake Flora Road. This intersection is the southern terminus of the proposed extension of the Cross SKIA Connector. It provides access to Analysis Areas E, F, A, and G. (Identified as Intersection 15 in the SKIA EIS Section 3.6.10, SKIA Site Access Evaluation.)
- New Intersection: Cross SKIA Connector / Analysis Area B Access / SR 3. This intersection is located at the current northern terminus of the Cross SKIA Connector. It is envisioned that an extension of the Cross SKIA Connector would proceed into Analysis Area B, providing additional access and circulation in the northeast portion of the Olympic View Industrial Park. (Identified as Intersection 16 in the SKIA EIS Section 3.6.10, SKIA Site Access Evaluation.)

In addition to the intersections described above, roads internal to the PSIC site are necessary to accommodate future growth. There are two broad categories of internal roadways:

- Collector Roads: These are small (generally two-to-three lane) roads that connect local access roads (described below) to major regional roads and state highways. The collector roads shown on Figure CFP-2, below, are based on an extension of the existing collector road system, best transportation planning practices, and the location of potential development areas.
- Local Access Roads: These are small roads that provide direct access from project driveways to the overall roadway network. Because of the small and localized character of these roads, they are not shown on Figure CFP-2. Their costs are based on development patterns of industrial areas in the Green River Valley (i.e., 50 lineal feet of local access road are provided for every acre of developed industrial land).

Transit, Bicycle and Pedestrian Improvements Needed for Existing Conditions

There are no planned transit improvements in the PSIC area, but future growth in the PSIC region may lead to bus services provided by Mason County Transportation (which currently operates a route parallel to SR 3 along Old Belfair Road) and/or Kitsap Transit. Additionally, the Kitsap Transit vanpool program could start service in the PSIC area. For the purposes of this analysis, no new transit service was assumed in the study area.

Transit, Bicycle and Pedestrian Improvements Needed Because of Growth

Internal to the site, implementation of the Plan will result in the development of a robust pedestrian and bicycle network. Roadway standards are recommended that include sidewalks and possibly bicycle lanes on both sides of the street within more developed areas. In the undeveloped areas of the site, a multi-use path and wide shoulders are recommended, similar to the current Cross SKIA Connector design to accommodate active transportation modes. In addition, the PSIC Subarea Plan recommends that development be clustered to allow employees to walk or bicycle to retail and service commercial uses that will be located adjacent to industrial uses. Furthermore, it is recommended that a separate network of multi-use paths be constructed between clusters of development to provide direct connections between development areas for active transportation modes.

Given the sparse transit, pedestrian, and bicycle network in the study area, along with the industrial character of the PSIC site, the transportation needs analysis indicates the need for capital improvement projects that address vehicular impacts on roadways.

Capital Projects

Roadway Improvements Projects

There are 25 roadway improvements recommended to serve future development under the Subarea Plan. Figure E-2 shows the location of the roadway projects in the PSIC area.

A few of the projects are outside the boundaries of the PSIC subarea. They are included in this CFP because they are needed to mitigate the impacts on roads and intersections outside PSIC caused by development in PSIC. These impacts and mitigations are identified in the SKIA EIS. In the project list below the full cost of each project is listed. However, in the financing plan section of this CFP the cost is apportioned between development in PSIC and development outside PSIC. The fair share portion attributable to PSIC development is financed by sources appropriate for PSIC. The portion of the cost attributable to development outside PSIC is financed by other sources and are not the responsibility of development in PSIC.

Similarly, improvements to the SR 3 and SR 16 state facilities have been provided for information. Improvements to these facilities will likely be required as PSIC becomes more developed. However, the State is responsible for funding the cost of state facilities, except for potential local match requirements. Although the future local match is unknown, recent

experience ranges from 1% to 20%. The cost of state facilities is not included in Table E-8, summary of Local Capital Facilities Project Costs.

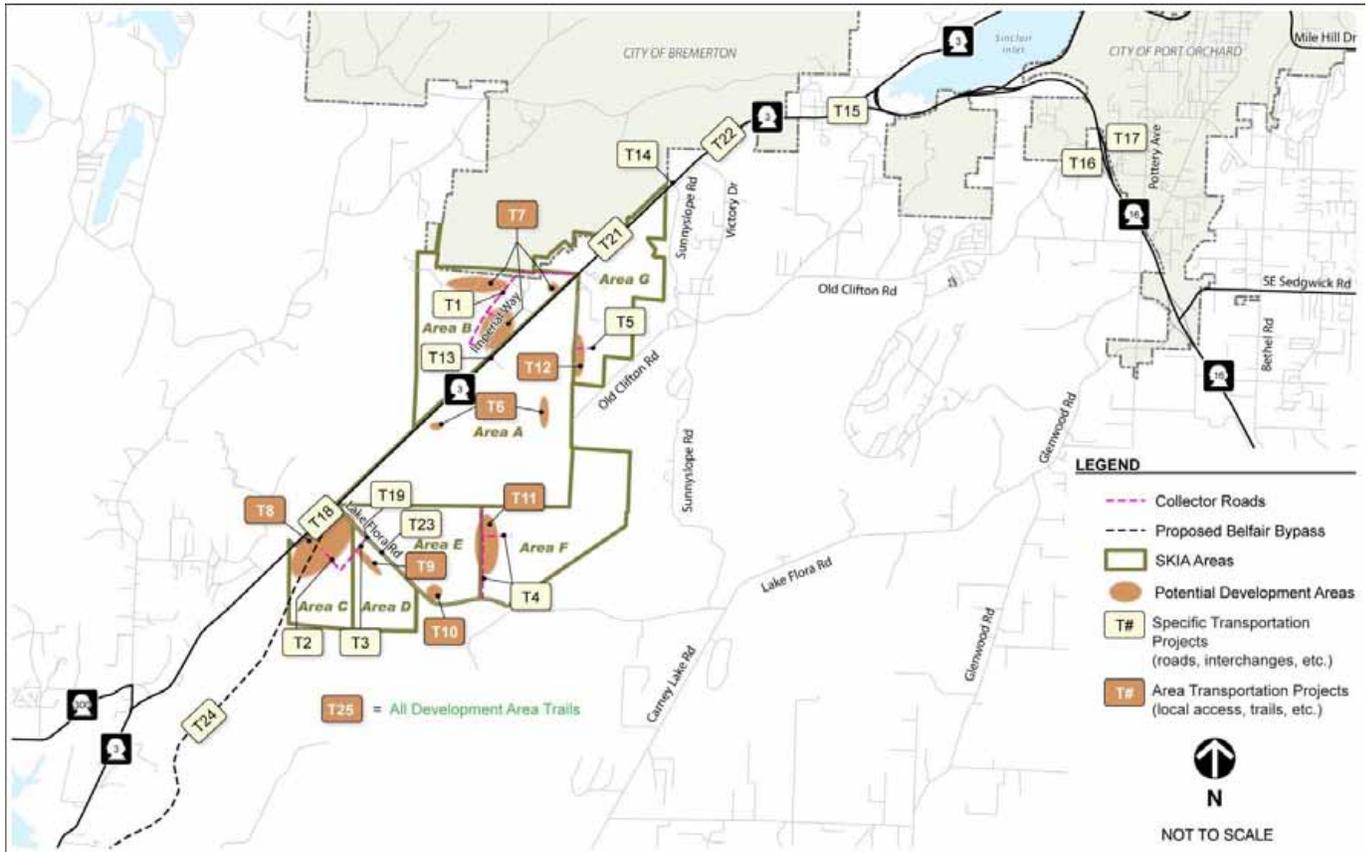
Table E-2 lists the projects with a brief description and the estimated cost of each project. Intersections with state roads may be signalized, but most intersections within PSIC can be roundabouts or traditional intersections at the discretion of the City. The cost estimates were largely based on WSDOT's "Project Bid Tabulations" and the "Highway Construction Cost Report."

Table E-2: Roadway Project Descriptions and Costs

#	Project	Description	Cost
<u>Local Roads</u>			
T1	Area B Collector Road	New roadway west of SR-3 at Cross SKIA intersection	\$ 4,441,400
T2	Area C Collector Road	New roadway south of Lake Flora Road to the Belfair Bypass	1,835,600
T3	Area D Collector Road	Portion of new roadway south of Lake Flora Road	498,000
T4	Area F Collector Road	New roadway north from Lake Flora Road	3,140,000
T5	Area G Collector Road	New roadway east from Cross SKIA Road	415,100
T6	Area A Local Access Road	0.43 miles of local access roads	681,100
T7	Area B Local Access Road	1.30 miles of local access roads	2,059,200
T8	Area C Local Access Road	1.30 miles of local access roads	2,059,200
T9	Area D Local Access Road	0.35 miles of local access roads	554,400
T10	Area E Local Access Road	0.74 miles of local access roads	1,172,200
T11	Area F Local Access Road	1.00 miles of local access roads	1,584,000
T12	Area G Local Access Road	0.52 miles of local access roads	823,700
T19	Analysis Area C/D and Lake Flora Road	New intersection southeast of existing Lake Flora Road / SR 3 intersection	1,000,000
T20	Cross-SKIA Connector and Lake Flora Road	New intersection at southern terminus of extension of Cross-SKIA Connector	1,000,000
T23	Lake Flora Widening	Widening to southern end of potential southern end of Cross-SKIA Road	3,201,100
T25	Trails	12 miles of trails	1,300,000
Total Cost of Local Roads			25,765,000

#	Project	Description	Cost
<u>State Roads</u>			
T13	SR 3 / Imperial Way	Signalize intersection, modify approaches	2,000,000
T14	SR 3 / Sunnyslope Road	Signalize intersection, modify approaches	2,000,000
T15	SR 3 / SR 16 / Sam Christopherson Ave	Grade separation	63,000,000
T16	Old Clifton Road / SR 16 Eastbound Ramps	Signalize intersection add dedicated right turn EB and dedicated left turn WB	1,000,000
T17	Old Clifton Road / SR 16 Westbound Ramps	Signalize intersection	500,000
T18	Analysis Area C and SR 3	New intersection southwest of existing Lake Flora Road / SR 3 intersection	2,000,000
T21	Cross-SKIA Connector / Analysis Area B / SR 3	New intersection at northern terminus of Cross-SKIA Connector	500,000
T22	SR 3 Widening	Widening from Imperial Way to Gorst	109,000,000
T24	Belfair Bypass	2-lane divided highway with capability for 4 lanes	76,000,000
Total Cost of State Roads			256,000,000

Figure E-2: Roadway Project Locations



Source: Fehr & Peers, 2011

Transit, Bicycle and Pedestrian Improvements Projects

Roadway project T25 provides for 12 miles of trails within PSIC. There are no other planned and funded transit, pedestrian, or bicycle improvements anticipated within the study area. It is conceivable that Mason County Transportation or Kitsap Transit could provide bus service to the area as employment grows. It is also possible that some vanpool services could serve PSIC.

WATER

Inventory of Existing Facilities

The following is a summary of the existing water facilities that are described in more detail in the SKIA EIS (see Section 3.8 Utilities).

The City of Bremerton water system currently extends into the study area. The study area is part of what is known as the W517 zone of the City of Bremerton water system and is considered by the Washington State Department of Health (WSDOH) as a separate water system owned and operated by the City of Bremerton. A small part of the northwest corner of the study area is also served by the Sunnyslope Water District, which extends to the west of the study area.

Water Supply

Water for the W517 zone is provided through four wells and a connection to the City of Bremerton's municipal water system.

Water Storage

Water storage is provided to the W517 zone through a 1.2 million gallon reservoir, known as Reservoir 10 that consists of two ground level tanks located in the Olympic View Industrial Park.

Water Distribution

The water distribution system extends from the north to serve the Port of Bremerton properties at Olympic View Industrial Park and the Airport.

Forecast of Future Needs

The following is a summary of the future water facility needs that are described in more detail in the SKIA EIS (see Section 3.8 Utilities).

Water Supply

As described in the 2005 Water System Plan, the City has sufficient current water rights to serve current and future development in PSIC.

Water Storage

The amount of water storage in PSIC would need to be increased to account for the new flows. Water demand is estimated to increase by 0.6 – 0.8 MGD (million gallons per day) as a result of 6,500 new jobs. Compared to the 2004 commercial water use in the West 517 zone of the City of Bremerton, this represents an increase of 1400% - 2200% over 2004 demand. Water demand under this alternative could exceed the City's storage capacity in this area.

Water Distribution

Water demand described under Water Storage will also exceed the City's transmission capacity to PSIC. The water transmission main between the City of Bremerton and PSIC would require expansion and new trunk lines and distribution lines would be required to serve areas of development.

Water Conservation

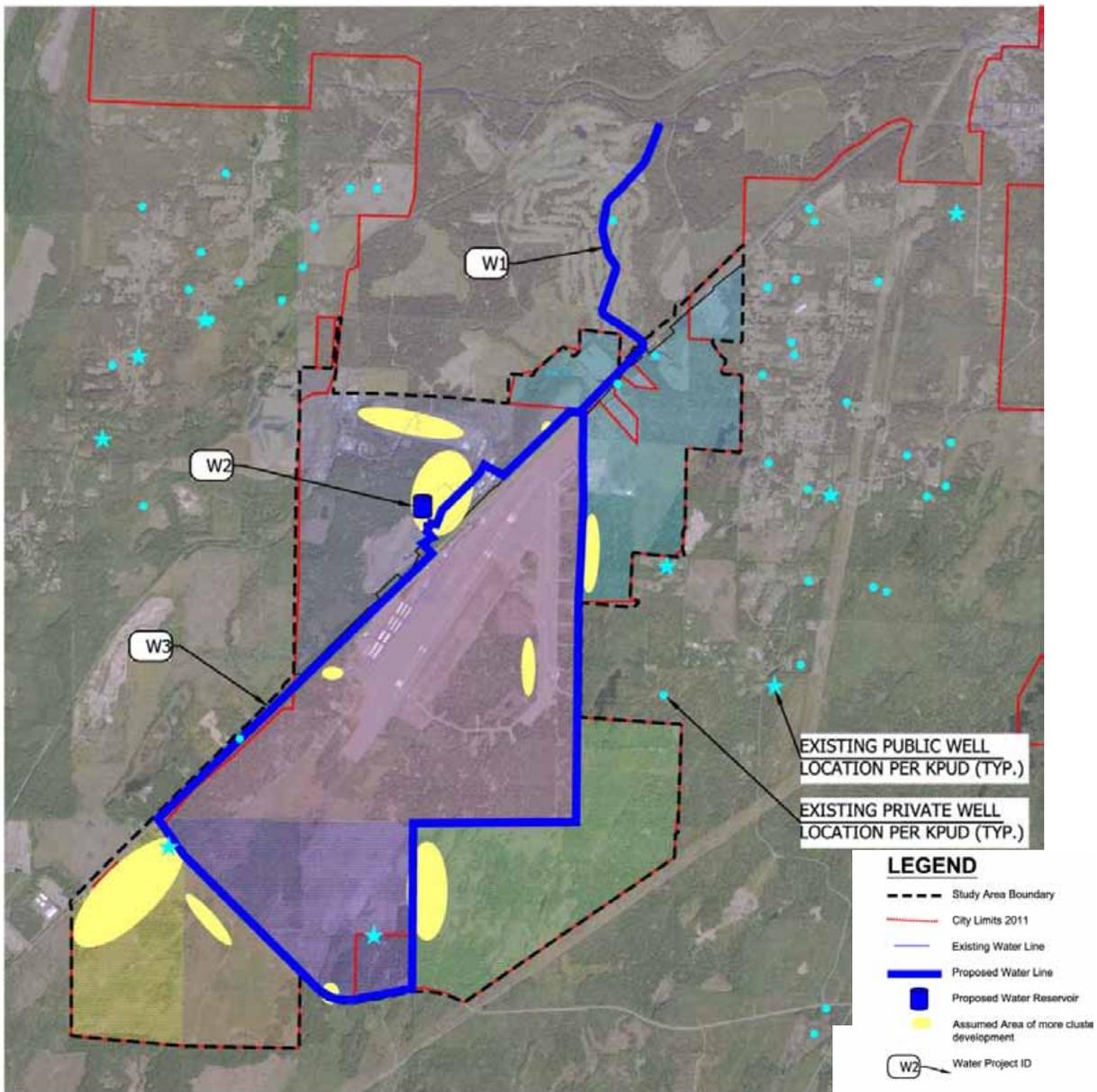
Green building standards should be encouraged or required for PSIC. Development to such standards can typically achieve 30% or more conservation for non-process related water consumption for domestic fixtures and irrigation and thus minimize the need for additional water system facilities. Process water consumption is the water used in the manufacturing process. Non-process water consumption is water used in bathrooms, kitchens and other uses not directly part of the manufacturing process.

Capital Projects

There are four water system improvements recommended to serve future development under the Subarea Plan. Figure E-3 shows the location of the water system projects in the PSIC area.

Table E-3 lists the projects with a brief description and the estimated cost of each project. Costs are based on the annexation study, adjusted to be consistent with the development assumptions and facilities proposed in this Subarea Plan.

Figure E-3: Water System Project Locations



Source: Chris Webb & Associates, 2011

Table E-3: Water System Project Descriptions and Costs

#	Project	Cost
W1	16" Transmission Main from City system to New Reservoir	\$ 2,201,000
W2	1,000,000 Gallon Water Storage Reservoir and Miscellaneous Pump Station & Treatment Upgrades	2,545,900
W3	Primary 16" Loop	5,995,300
W4	Secondary 8" & 10" Loops Built Along with Local Access Roads	1,590,800
	Total	12,333,000

Source: Chris Webb Associates, Inc., 2011

SEWER

Inventory of Existing Facilities

The following is a summary of the existing sewer facilities that are described in more detail in the SKIA EIS (see Section 3.8 Utilities).

Sewer Treatment

The Port of Bremerton's sewer treatment plant located off of SW Barney White Road serves about 158 acres of the core Port development in the study area, including the airport, supporting facilities and the Olympic View Industrial Park. The approved capacity for this system is 0.0725 MGD (72,500 gallons per day). This plant treats an average 0.0244 MGD (24,400 gallons per day) which is 33% of its rated capacity according to the Port of Bremerton.

Sewer Collection

The existing Port sewer collection system primarily consists of 8-inch gravity pipes to convey flows to the sewer lagoons. Near the airport, there is a small pump station that conveys flow under Highway 3. The existing system was constructed in 1972 and upgraded in 1987.

The majority of the study area is outside of the area served by the existing sewer treatment facility and relies on onsite septic systems. The City of Bremerton has recently undertaken a project to extend sewer service to the Gorst Area.

Forecast of Future Needs

The following is a summary of the future sewer facility needs that are described in more detail in the SKIA EIS (see Section 3.8 Utilities).

Sewer Treatment

The 6,500 projected new jobs are expected to result in an area wide average daily flow of 0.5 MGD. Projected sewer flows would exceed the Port's treatment capacity in this area.

In order to reduce up-front costs of constructing sewer infrastructure to support growth, this plan proposes to provide sewage treatment with satellite Membrane Bioreactor (MBR) sewer plants that can produce effluent with sufficiently high quality as to be re-used as reclaimed water and can be built in a modular way to serve development when and where it occurs in PSIC. This allows infrastructure to be phased in over time as growth occurs.

Two sewage treatment plants could be constructed with one plant located in the north in Area B serving Areas B & G and one in the south in Area C serving the balance of PSIC. The northern plant would have a rated capacity of 0.43 MGD (average daily flow 0.22 MGD). The southern plant would have a rated capacity of 0.55 MGD (average daily flow 0.27 MGD). These plants could be built separately with the plant near the growth built first, either north or south.

Sewer Collection

A sewer collection system of trunk lines, pump stations, and collector lines would be needed to connect developed properties to available treatment plants. As an alternative to satellite MBR sewer plants the City may choose to extend utility infrastructure for collection and treatment. A September 2008 study prepared by HDR Engineering indicated at a "high growth scenario" at full buildout that this would cost approximately \$30.5 Million. While this cost is less than the cost of implementing satellite MBR facilities (shown in Table E-4) it is difficult to phase over time in conjunction with growth and requires up-front investment. Additionally, there may be opportunities to connect with other utility providers that have available infrastructure that allows development an affordable option.

Wastewater Re-Use and Disposal

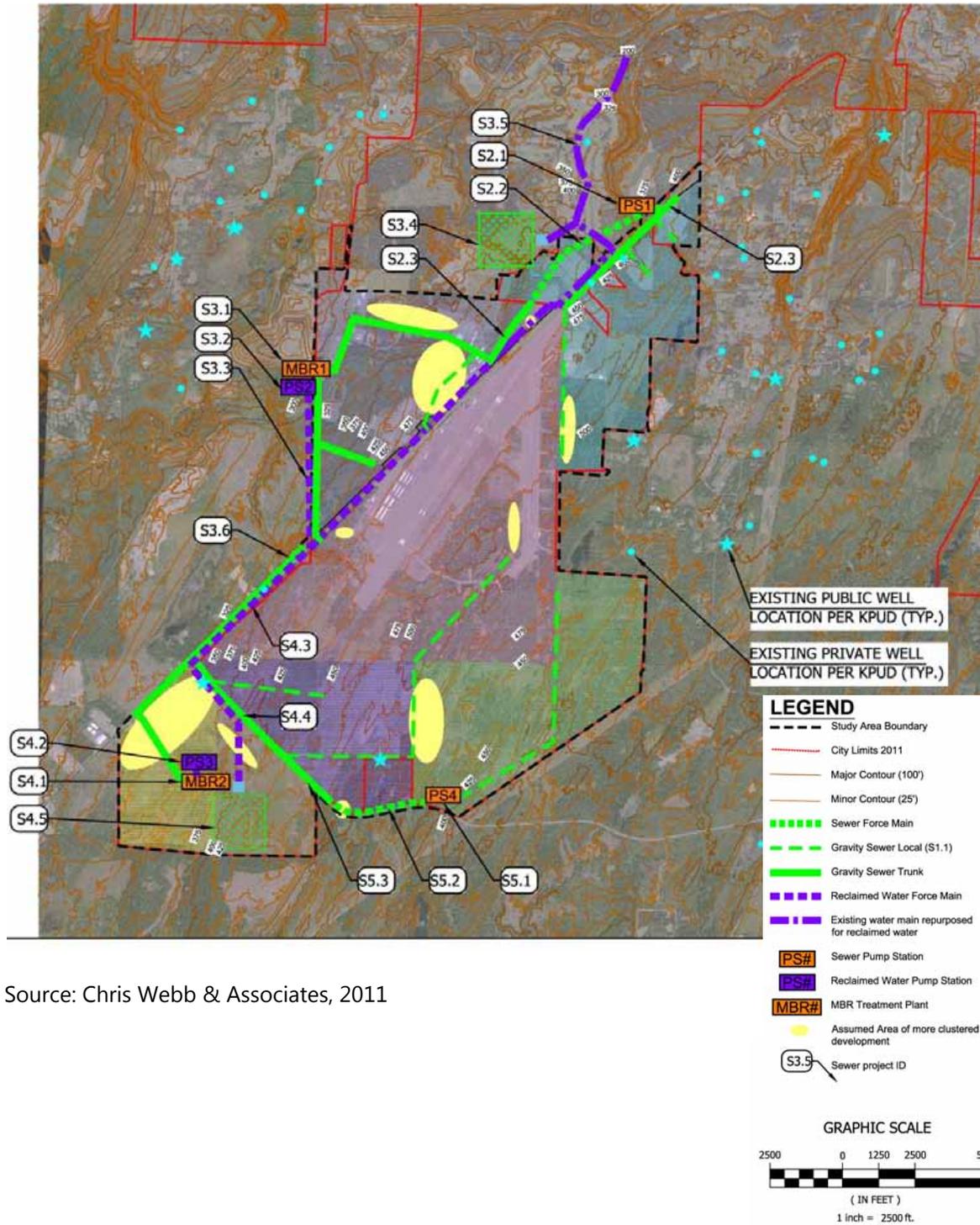
The effluent from the MBR plant would be pumped to the uses described for each project, or to the winter disposal/groundwater recharge elements.

Capital Projects

There are five sewer system improvements recommended to serve projected development under the Subarea Plan. Figure E-4 shows the location of the sewer system projects in the PSIC area.

Table E-4 lists the projects with a brief description and the estimated cost of each project. Costs are based on the City's annexation study, prepare prior to the annexation of PSIC, adjusted to be consistent with the development assumptions and facilities proposed in this Subarea Plan.

Figure E-4: Sewer System Project Locations



Source: Chris Webb & Associates, 2011

Table E-4: Sewer System Project Descriptions and Costs

#	Project	Cost
S1	Secondary 8" & 10" Gravity Sewer Built Along with Local Access Roads	\$ 2,080,300
S2	Sewer Service for Area G	4,921,100
	S2.1 Pump Station 1	
	S2.2 4" Force Main	
	S2.3 8" – 10" Gravity Sewer	
S3	New Membrane Bioreactor (MBR) Plant #1 with Re-Use; Sewer Service for Areas A (partial) and B	13,499,300
	S3.1 MBR Plant	
	S3.2 Pump Station 2	
	S3.3 6" Force Main	
	S3.4 Winter Sewage Disposal / Groundwater Recharge	
	S3.5 Re-Use ex. 8" DI Water for Reclaimed Water Effluent to Golf Course	
	S3.6 8" – 10" Gravity Sewer	
S4	New MBR Plant #2 with Re-Use	12,391,000
	S4.1 MBR Plant	
	S4.2 Pump Station 3	
	S4.3 6" Force Main	
	S4.4 8" – 10" Gravity Sewer	
	S4.5 Winter Sewage Disposal / Groundwater Recharge	
S5	Sewer Service for Areas E & F	2,433,000
	S5.1 Pump Station 4	
	S5.2 4" Force Main	
	S5.3 8" – 10" Gravity Sewer	
	Total	35,324,700

Source: Chris Webb Associates, Inc., 2011

STORMWATER

Inventory of Existing Facilities

There are no major stormwater treatment and/or flow control facilities in PSIC. The Port of Bremerton owns two detention ponds on the west side of Highway 3 and there is another detention pond at the Waste Management property, but these do not affect the analysis of needs for stormwater facilities in SKIA.

Forecast of Future Needs

A detailed analysis of future stormwater needs in PSIC is presented in the SKIA EIS (see Section 3.8 Utilities). The following is a summary of the future stormwater needs that are described in more detail in Section 3.8 of the EIS.

Given the largely undeveloped and rural nature of the PSIC area there are no known drainage problems within the study area.

Most of the soil in PSIC is an Alderwood series gravelly sandy loam (+/- 63%) and Harstine series gravelly sandy loam (+/- 13%). These soils tend to be deep moderately well drained soils underlain in some cases by a cemented till layer.

Even assuming planned development, much of the area would remain in forest or other undeveloped state and much of the vegetated area would remain undeveloped.

Property owners that develop their land will be required to meet stormwater standards on their site, therefore there is no need for public stormwater facilities. Furthermore, site development will be required to use low impact development (LID) as the primary stormwater management approach. The emerging practice of LID has the ability to mitigate water quality impacts of development in a more effective manner than conventional stormwater treatment practices. Additionally, LID can address water quantity by reducing run-off and recharging groundwater. In till soils, LID can reduce the size of any required detention and flow control facilities and in outwash soils LID can often be used in place of detention facilities for stormwater flow control.

Capital Projects

There are no separate capital improvement projects for stormwater for PSIC. LID stormwater management is included in the design and the cost of street projects in the Transportation section of the CFP. The balance of the stormwater facilities would be private.

FINANCING PLAN

Policies Regarding Paying for SKIA's Facilities

There are many sources of funds that could be used for SKIA's transportation, water, sewer and stormwater facilities. The first step in selecting the most appropriate funding sources is to determine the policies that will provide direction to the financing plan. The policies address important issues concerning who will pay for SKIA's facilities, and when the facilities will be built.

Who Pays?

There are two parties that typically pay for facilities: the government, and the developer/property owner. In some situations, one party pays all the costs, in other situations each party pays a portion of the cost.

Understanding who will pay for SKIA's facilities will directly affect the selection of funding sources for the financing plan. When governments pay the costs, the funding typically comes from one or more taxes, rates, grants, or low-interest loans. When developers pay the costs, the funding usually comes from private investments.

The policy direction of who pays for PSIC facilities will also have other consequences. The City, on behalf of all of its residents and taxpayers, may be willing to underwrite part of the cost in order to support economic development and system expansions, but it may also expect the developers to share the cost so that growth pays for part of its costs, and taxpayers do not subsidize growth. Property owners and developers typically look for the lowest cost and the greatest competitive advantage in order to create incentives (or avoid disincentives) to attract potential businesses.

Lastly, the policy direction of who pays for PSIC facilities has to account for risks and benefits. The party or parties that pay for the facilities are taking the risk that they might not recoup their investment if the property does not develop. This risk can be reduced by phasing the facilities to correspond to increments of development. Alternatively, the risk can be eliminated by waiting to install the facilities until a commitment is received from a buyer or tenant. However, some facilities take significant time to design and build. If the timeline exceeds the time to build the occupant's building, this would be a significant disincentive to the prospective occupant.

Consistent with Strategy CF 2.3, this financing plan for PSIC facilities is based on the assumption that the costs will be paid with a combination of governmental and developer resources with phasing consistent with growth's demand.

When Will Facilities be Built?

The most economically efficient timetable to build facilities is immediately before they are needed. This reduces or avoids carrying costs for facilities before they are used, and it also avoids lost opportunities when a potential occupant chooses a different location because they are unable to wait for facilities to be built after they select a location.

As a practical matter, many potential occupants are looking to move in to fully developed space with all facilities in place, or else to develop on a site that already has central facilities, such as collector roads and sewer treatment capacity, leaving only the local streets and water and sewer lines to be installed as the first step in developing their site.

Understanding when SKIA's facilities will be built directly affects the selection of funding sources for the financing plan. Facilities that are constructed prior to commitments to buy or lease sites requires substantial cash investments and/or the ability and willingness to incur debt by borrowing the money. Facilities that are constructed at the time the development occurs can be paid by fees associated with the development, or debt incurred for the facilities needed to serve the specific site.

This financing plan for PSIC facilities is based on the assumption that the costs of “central” or “core” facilities will be phased in targeted areas within PSIC, and the costs of “local” facilities, such as local access streets and local water and sewer lines, will be incurred when a developer or potential occupant commits to and initiates plans for a structure.

Sources of Funds Available for SKIA’s CFP

As noted in the introduction to this Financing Plan section, there are many sources of funds that can be used for SKIA’s transportation, water, sewer and stormwater facilities. The next step in selecting the most appropriate funding sources is to identify specific sources that could be used for SKIA’s facilities. The introduction identified two parties that typically pay for facilities: the government, and/or the developer/owner of the property. The following list of potential funding sources for SKIA’s CFP is organized according to the party that generates the money:

Government Funding Sources

The following are sources of funding that some Washington cities use to pay for capital improvements:

- Real Estate Excise Taxes
- Motor Vehicle License Fees (Transportation Benefit District)
- Business License based on Census of Employees
- Property Taxes (pledged to repay general obligation bonds)
- Bond Proceeds (borrowed money)
- Grants (from Federal or State governments using their taxes to fund the grants)

The funding by the government can be targeted to come from specific zones for specific development (i.e., PSIC), or spread across all taxpayers in the City.

Developer/Property Owner Funding Sources

The following are sources of funding that developers and property owners use to pay for capital improvements:

- Owner and/or Investor Capital
- General Facility Charges (paid to government for utilities facilities)
- Impact Fees (for transportation facilities)
- Assessments (paid to Community Facilities Districts or Local Improvement Districts until the property is occupied and the assessment transfers to the occupant)
- Tax Increments (portions of property taxes, sales & use taxes, and/or other taxes). Note: these are very limited in Washington, as described below.

The cost of funding by developers and property owners is typically passed along to occupants in the form of higher rents or higher purchase prices.

Transportation Financing Plan

Table E-5 lists groups of transportation projects from Table E-2, and the estimated cost of each group.

Table E-5: Transportation Project Financing Plan

Project Group (#)	Total
Local Roads	\$ 25,765,000
State Roads	256,000,000
Total	281,765,000

Source: Henderson, Young & Company, 2011

The financing plan for transportation projects is based on the following assumptions:

- Grants will be sought and used to pay for as much of the project costs as possible.
- PSIC developers/property owners are responsible for funding the portion of local roads that are not funded by grants.
- The state is responsible for the cost of state road projects other than local matching requirements. Note that the cost of state facilities is not included in Table E-8, Summary of Local Capital Facilities Project Costs.
- The local share of state road projects depends on the matching requirement of specific grants. Recent experience ranges from 1% to 20%.
- Specific funding to be raised by each party will be one or more of the funding sources generated by each party, as described above. A Community Facilities District (CFD) is particularly interesting in part because of the ability to establish assessments that will be paid by future occupants, thus reducing the front-end cost to the City and the developers/property owners. Another desirable feature of a CFD for PSIC is that the requirement for unanimous approval by property owners is easiest to accomplish when there are relatively few property owners, as is the case with PSIC.

Water Financing Plan

Table E-6 lists groups of water system projects from Table E-3, and the estimated cost of each group.

Table E-6: Water System Project Financing Plan

Project Group (#)	Total
Local Access Water Lines (W4)	\$ 1,590,800
Core Water System (W1-3)	10,742,200
Total	12,333,000

Source: Henderson, Young & Company, 2011

The financing plan for water system projects is based on the following assumptions:

- PSIC developers/property owners are responsible for the local access water lines that provide access to their property from the core water system.
- The cost of core water system improvements could be paid by the City and/or PSIC developers/property owners.
- Specific funding to be raised by each party will be one or more of the funding sources described above. A Utilities Local Improvement District (ULID) is a funding mechanism that is commonly used for water and sewer. A Community Facilities District (CFD) is an alternative to conventional funding of utility facilities through general facility charges and water rates. The CFD alternative would establish assessments that will be paid by future occupants. As noted in the Transportation Financing Plan, the CFD's requirement for unanimous approval by property owners is easiest to accomplish when there are relatively few property owners, as is the case with PSIC.

Sewer Financing Plan

Table E-7 lists groups of sewer system projects from Table E-4, and the estimated cost of each group.

Table E-7: Sewer System Project Financing Plan

Project Group (#)	Total
Local Access Sewer Lines (S1)	\$ 2,080,300
Core Sewer System (S2-5)	33,244,400
Total	35,324,700

Source: Henderson, Young & Company, 2011

The financing plan for sewer system projects is based on the following assumptions:

- PSIC developers/property owners are responsible for the local access sewer lines that provide access to their property from the core sewer system.
- The cost of core sewer system improvements could be paid by the City and/or PSIC developers/property owners.
- Specific funding to be raised by each party will be one or more of the funding sources described above. A utilities Local Improvement District (UUD) is a funding mechanism that is commonly used for water and sewer. A Community Facilities District (CFD) is an alternative to conventional funding of utility facilities through general facility charges and sewer rates for the same reasons described above for the Water Financing Plan.
- An example of phasing of sewer projects could be to build the projects in northern PSIC (S2 and S3) in one phase, and the projects in southern PSIC (S4 and S5) in a separate phase. Either phase could be first, depending on where potential development occurs.

Stormwater Financing Plan

There is no financing plan for stormwater because there are no separate capital improvement projects for stormwater for PSIC. The financing plan for transportation capital improvements includes the LID stormwater management costs included in street projects in the Transportation section of the CFP. All other stormwater improvements will be private investments on site by property developers and owners.

Notes About Other Funding Sources That May Be Infeasible or Unsuitable

There are some other sources of funding that are authorized by Washington law that include authorization for transportation, water, sewer, and stormwater facilities, but which are not likely to be implemented, or are not suitable to fund SKIA's facilities for the reasons listed below. The funding sources are included in the CFP in the event that circumstances change so that one or more of the funding sources becomes feasible and suitable for PSIC.

- Community Revitalization Financing (CRF) - RCW 39.89 authorizes financing through limited increments of property taxes. The requirement for approval by 75% of other taxing entities makes this difficult to implement, and therefore unlikely.
- Local Infrastructure Financing Tool (LIFT) - RCW 39.102 authorizes financing through limited increments of property taxes, sales and use taxes, and other excise taxes. LIFT requires a contract or letter of intent from a private developer, therefore LIFT funding would not be available to build infrastructure prior to such a commitment. LIFT is limited to \$1 million per year per city and \$5 million per year statewide which makes it unlikely and unsuitable. LIFT also requires approval of the other taxing entities which increases the difficulty to implement, and therefore makes it even less likely.
- Local Revitalization Financing (LRF) - RCW 39.104 102 authorizes financing through limited increments of property taxes, sales and use taxes, and other local public sources of revenue. LRF requires a contract or letter of intent from a private developer, therefore LRF funding would not be available to build infrastructure prior to such a commitment. LRF is limited to seven pilot projects in the State, and they have already been selected, therefore LRF is not available for PSIC.
- Hospital Benefit Zone (HBZ) - RCW 39.100 authorizes financing through limited increments of sales and use taxes. HBZs can only be used for an area that will be served by a hospital for which a certificate of need has been issued. The PSIC subarea is not likely to include a hospital, therefore HBZ is not suitable for PSIC.
- Public Facility District (PDF) - RCW 35.57 authorizes cities to issue bonds and charge fees and taxes that can be used for infrastructure to support the PDF's "public facility". The PFD is required to be for convention centers or special events centers. These type of centers are not likely to be developed in PSIC because of its status as one of eight MICs (Manufacturing Industrial Centers) designated by the Puget Sound Regional Council) and required to be used for manufacturing and industrial activities.

- Stadium, Convention, Arts & Tourism Facilities - RCW 67.28 authorizes revenue bonds repaid by special lodging and excise taxes. The improvements could include infrastructure. RCW 67.28 requires that the primary purpose be a "tourism-related facility" such as a public stadium, convention center, performing arts center, or visual arts center. It is unlikely that PSIC will develop such facilities, therefore this is an unlikely funding source.
- Community Renewal Area (CRA) - RCW 35.81 authorizes financing through limited increments of property taxes and sales and use taxes which are used to pay debt on bonds that fund the infrastructure. CRA's are required to be used in "blighted" areas, or to prevent the spread of blight to another area. The PSIC area does not qualify as blighted or potentially blighted, therefore a CRA is unsuitable for PSIC.
- Main Street Tax Credit Incentive (MSTCIP) - RCW 43.360 and 82.73 authorize business and occupation tax credits or utility tax credits for donations to Main Street Program revitalization activities. MSTCIP applies only to downtown commercial and neighborhood commercial districts, neither of which are suitable for PSIC.
- Public Development Authority (PDA) - RCW 35.21.730-747 authorizes creation of PDAs to receive federal or state grants. This could be suitable for PSIC, but it is not a funding source, per se, but a mechanism for receiving grants that are the actual funding source.

CONCLUSION

This capital facilities plan includes all the components required by state law. It includes 16 transportation projects, four water system, and five sewer system projects.

Table E-8: Summary of Local Capital Facilities Project Costs

Type of Facility	Cost
Local Roads	\$ 25,765,000
Water	12,333,000
Sewer	35,600,000
Stormwater	0
Total	73,698,000

In addition, there are nine state transportation projects estimated to cost \$256 million.

There are many ways to pay for these projects as described above. Each method of payment requires the City, or the owners/developers of the properties to raise revenues that they do not currently have. The City would have to charge taxes, fees, or assessments. The owners/developers would have to raise private capital.

If the City and the owners/developers of the PSIC properties expect each other to pay for the capital facilities, it is likely that future capital facilities will be developed in an unpredictable and

incremental manner. Under this approach, capital facilities may continue to serve as a constraint to future development and deterrent in achieving the PSIC vision. Alternatively, if the City and the owners/developers of the properties can work in collaboration to develop a mutually acceptable financing approach based on the resources identified in this plan, future public facilities that support the PSIC vision may be developed and serve as an incentive for future economic development. The potential for a public/private partnership to obtain public facilities funding is envisioned as a key implementation measure for this Subarea Plan, please see Section B, Implementation, of this document.