KITSAP COUNTY UGA SIZING & COMPOSITION REMAND

Final Capital Facilities Plan Update

AUGUST 2012

KITSAP COUNTY

FINAL CAPITAL FACILITIES PLAN UPDATE 2013-2025

Kitsap County UGA Sizing and Composition Remand

August 2012

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FINAL CAPITAL FACILITIES PLAN UPDATE

Kitsap County

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1.0 EXECUTIVE SUMMARY

1.1 Contents of the Plan

Kitsap County has prepared this Capital Facilities Plan (CFP) in response to Growth Management Act (GMA) requirements, and has developed it in collaboration with service providers across the county. The CFP is organized into the following chapters:

- **Executive Summary.** Provides an overview of the CFP contents, assumptions, sources, and results.
- **Introduction.** Summarizes the CFP purpose and the legislation that guide its preparation.
- **Assumptions.** Provides the population and land use assumptions used in this CFP.
- **Capital Facilities Revenue Analysis.** Provides projections of County revenue.
- **Capital Facilities.** Provides an inventory, level of service analysis, and capital facilities plan developed by the county, city, or special district providers. Facilities addressed include: County public buildings, fire protection, law enforcement, parks and recreation, sanitary sewer, schools, solid waste, stormwater, transportation, and water.
- **Implementation.** Summarizes management tools that will be used to implement the CFP.

1.2 Growth Assumptions

This CFP is based on population data of a Preferred Land Use Plan. Based on land use capacity and urban growth area (UGA) boundaries, the population projections are as follows:

- Year 2018: 290,263
- Year 2025: 329,473

1.3 Public Facility Costs

The cost of capital improvements for 2013-2018 and, when available, for 2019-2025 period are provided in the CFP.

1.4 Public Facility Financing

The purpose of this financial analysis is to support the financing plan for the CFP that is required by RCW 36.70A.070(3)(d). Revenue estimates have been developed to assist in project planning, and represent realistic, but not exact, estimates of revenue available for the CFP.

Forecasts of revenues were prepared for County-provided services. The revenue sources and forecasts for municipal and special district service providers are also summarized from available plans and compared to typical revenue sources for those service providers. More detail on CFP financing can be found in Section 4.0 Capital Facilities Revenue Analysis.

1.5 CFP Level of Services Consequences – County Services

The CFP outlines the level of service (LOS) consequences of growth for the County through 2025. LOS consequences are summarized in Exhibit 1 for each facility reviewed. The first column shows the service or facility type that the county is providing and the second column shows the 2012 adopted LOS. The 2013-2025 LOS Standard column shows what LOS standard the County would need to adopt to continue to meet its standard through 2025, based on growth assumed under the County's preferred land use plan (the Preferred Land Use Plan studied in the 2012 Supplemental Environmental Impact Statement (EIS)) and currently planned capital facilities. *A more detailed review of each County service, as well as LOS analysis for non-county-provided facilities, is contained in Section 5.0 Capital Facilities.*

Exhibit 1
Summary of Level of Service Consequences for County Provided Services Included in the CFP

County Facility Type	Current LOS 2012 (per 1,000 pop)	Adjusted LOS 2013-2025 (per 1,000 pop)	Proposed Target LOS Standard *(Parks and Rec Only)**
PUBLIC BUILDINGS			
Administration Buildings	1,092 sq. feet (SF)	952 SF	
Maintenance Facilities	130 SF	109 SF	
District Courtrooms	0.022 courtrooms	0.012 courtrooms	
Superior Courtrooms	0.029 courtrooms	0.021 courtrooms	
Community Centers	239 SF	200 SF	
PARKS, RECREATION FACILITIES, AND OPEN SPACE*			
Open Space	71.0 acres	57.1 acres	71.0 acres
Regional Parks	16.0 acres	8.9 acres	16.0 acres
Heritage Parks	19.0 acres	11.5 acres	19.0 acres
Community Parks	4.65 acres	3.5 acres	4.65 acres
Shoreline Access	0.061 miles	*No adjustment needed*	
Trails	0.20 miles	*No adjustment needed*	
SHERIFF FACILITIES			
Sheriff Offices	266 SF	129 SF	
County Jail	1.70 beds	1.43 beds	
Work Release	0.17 beds	0.15 beds	
Juvenile	0.084 beds	*No adjustment needed*	

Source: Kitsap County, 2006; Kitsap County Parks and Recreation Department, 2012; and BERK, 2012.

*For Parks, Recreation Facilities, and Open Space, the "2012 LOS" is the LOS as adopted in the 2012 Parks, Recreation, and Open Space Plan (PROS). The 2013-2025 LOS standards are the "base" LOS standards that the County has adopted in order to reflect fiscal constraints and meet its LOS through 2018 and 2025, The LOS from the PROS Plan are considered a Target LOS should the County acquire additional funds. See section 5.4 for additional detail.

1.6 CFP Source Documents

The source documents used in preparing this CFP are the capital improvement plans prepared routinely as required by the State, and that are necessary for obtaining funding. These individual capital improvement plans define projects and proposed funding for those projects required to rehabilitate existing facilities and to provide level of service capacity to accommodate new growth in the county. In addition any functional plans for service areas were also reviewed.

Generally, the proposed new capacity, replacement, and rehabilitation of capital facilities and financing for 2013-2018 and 2019-2025, where available, reflect the general planning goals and policies, as well as land use infrastructure requirements, identified in each provider's long-range planning document.

For example, each of the sewered areas for which the County provides facilities and services has a wastewater plan that (1) identifies existing facilities, needs for rehabilitation and new capacity facilities, (2) evaluates alternatives to meet those needs, and (3) recommends capital facilities, and estimates costs, and funding options.

The CFP planning process described above combined with the LOS methodology used to identify the requirements for and affordability of future capital facilities constitutes the capital facilities planning process. This process

enables the County to make more (1) informed decisions about its investment of public dollars, and (2) timely decisions about maintaining levels of service in accordance with the goals, policies, and implementation programs of this CFP.

2.0 INTRODUCTION

2.1 Capital Facilities Plan Purpose

Capital facilities are the facilities needed to support growth. They include roads, sewers, parks and recreation, and facilities for drinking water, stormwater, garbage disposal and recycling, and all the government buildings which house public services, including law enforcement, fire protection, and schools.

The purpose of the CFP is to use sound fiscal policies to provide adequate public facilities consistent with the land use element and concurrent with, or prior to, the impacts of development in order to achieve and maintain adopted standards for levels of service.

2.2 Growth Management Act

In 2012, Kitsap County has conducted a UGA Sizing and Composition Remand Evaluation. The County prepared amendments to its Comprehensive Plan approved originally in 2006 consistent with the GMA 10-year update review cycle. The Comprehensive Plan amendments were the result of a remand by the Central Puget Sound Growth Management Hearings Board (CPSGMHB) requiring the County to revisit its UGAs to ensure that the County's residential land capacity assumptions reflected local conditions and GMA goals for future growth. As a result of reviewing UGA residential capacities and sizing, the County prepared consistency amendments with its adopted Comprehensive Plan Elements, including this CFP.

The County's 2007-2012 CFP prepared with the 2006 Comprehensive Plan required an update to a new six-year period (2013 to 2018). This revised CFP applicable to 2013-2025 must demonstrate an ability to serve growth with urban services through the year 2025 within newly reconfigured UGA boundaries.

GMA requires that all comprehensive plans contain a capital facilities element. GMA specifies that the capital facilities element should consist of a) an inventory of existing capital facilities owned by public entities; b) a forecast of the future needs for capital facilities; c) the proposed locations and capacities of expanded or new capital facilities; d) a six-year capital facilities plan that will finance 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 existing needs.

The GMA requires the CFP to identify specific facilities, include a realistic financing plan (for the six-year period), and make adjustment to the plan if funding is inadequate. Capital facilities are important because they support the growth envisioned in the County's Comprehensive Plan. RCW 36.70A.070(3) requires that all capital facilities have "probable funding" to pay for capital facility needs, or else the County must "reassess the land use element."

Recent CPSGMHB cases have placed more importance on the preparation and implementation of CFPs. The key points include:

- Capital facilities plans should address the 20-year horizon and full UGA boundaries.
- Financial plans should address at least a six-year period and funding sources should be specific.
- Existing un-served areas in the UGA must be addressed as well as new UGA expansion areas.

3.0 ASSUMPTIONS

3.1 Land Use and Growth Projections

This CFP is based on population data illustrated in Exhibit 2.

Exhibit 2
Countywide Population Assumptions

Year	Countywide Population	Unincorporated Population
Existing (2010)	251,133	168,172
2018	290,263	192,307
2025	329,473	216,250

Source: 2010 US Census published 2012; BERK 2012

Year 2010 data is based on US Census data, and was used for this analysis because it was available at a variety of geographies down to the block level. Year 2011 population is similar to the Year 2010 at population countywide scale (253,900) but is not available at small units of geography, and as a result Year 2010 data was used. Year 2025 population is based on a land capacity analysis of the UGAs and non-UGA population allocations. Year 2018 population is based on the compound annual growth rate between 2010 and 2025. Unincorporated population is based on the same data as countywide population data, but representing unincorporated areas outside of city limits as of 2012.

For coordination purposes, alternative population forecasts were projected in a range and distributed to capital facility providers throughout the county. Capital facility providers were provided year 2018 and 2025 forecasts by transportation analysis zones that could be aggregated to generally approximate service area boundaries. As planning alternatives were formulated, updated forecasts were distributed to service providers. Forecasts varied based on different land use and growth assumptions, but on the whole were similar.

For the purposes of this CFP, where unincorporated population only was used (e.g. sheriff service area; County revenue forecasts), this analysis assumed that annexations between 2006 and 2012 had occurred. In addition, revenue forecasts were prepared for two different future annexation scenarios – one in which the Silverdale UGA incorporates in 2012 and a second in which the Silverdale UGA incorporates in 2022. While in reality it is likely that only a portion of the Silverdale will incorporate initially, this analysis assumes full incorporation of the UGA in order to present the most conservative revenue forecasts. The analysis assumes that Gorst is annexed by Bremerton in 2014.

3.2 Other Information and Assumptions

This CFP is based on the following sources of information and assumptions:

- **Adopted and Proposed Capital Facility Plans:** The capital facility plans of each service provider, particularly those serving UGAs, were collected and reviewed including inventories, levels of service, planned facilities, growth forecasts, and potential funding.
- **Growth Forecasts:** Forecasts of population and job growth were allocated to each UGA and the rural areas. The current 2010 population as well as the 2018 and 2025 growth for each capital facility service provider were then estimated by special district boundary.
- **Revenue Forecasts:** Forecasts of revenues were prepared for County-provided services to the 2025 horizon year. The revenue sources and forecasts for municipal and special district service providers are also summarized from available plans and compared to typical revenue sources for those service providers.

4.0 CAPITAL FACILITIES REVENUE ANALYSIS

4.1 Introduction

This section discusses Kitsap County's capital facilities revenues for county-provided facilities and services. The purpose of this financial analysis is to understand the fiscal constraints of the Kitsap County CFP. These revenue estimates were developed to assist in project prioritization and planning, but are not intended to be precise forecasts. Exact funding levels are difficult to predict given the uncertainties of funding sources. The estimates

discussed in this section are intended for planning purposes; actual revenues are highly sensitive to local, state, and federal policy decisions; personal choices of residents; and other market forces.

Estimated future revenues have been projected for the Plan's 2013-2025 time period in year of expenditure dollars (YOE$). The revenue analysis is grouped according to the following categories:

- **Dedicated Capital Revenues**. These revenues are required by law to be used for specific types of capital expenditures.
- **General Capital Revenues**. These revenues are required by law to be used for capital, but the types of capital projects are not restricted.
- **Potential Policy Options and Other Funding Sources**. This section covers other ways in which the County could fund its capital project costs, including through the use of policy choices as well as other sources such as local improvement districts and private development.

Some of the funds discussed in this analysis may be used to fund the maintenance and operations of existing capital facilities or to construct new ones. However, if maintenance and operations costs of existing facilities increase faster than revenues, jurisdictions are confronted with difficult decisions regarding whether to fund these costs at the expense of building new capital, or to adjust level of service standards. Those decisions will be made by the Board of County Commissioners and the executive leadership of the County according to the County's needs and opportunities. Every effort has been made in this analysis to include only those revenues that the County currently chooses to use for capital investments. No funds currently used for maintenance and operations have been included in the capital revenue analysis.

4.2 Assumptions

The revenue projections included in this analysis are based on many assumptions, the most significant being:

Annexation Assumptions. This analysis makes annexation assumptions that are based on discussions with County staff familiar with the County's and cities' future plans:

- This analysis assumes that the Silverdale UGA will incorporate during the planning period. The numbers presented in this section assume that the Silverdale UGA incorporates in 2012, which provides the most conservative estimate of future county revenues. Another scenario was also analyzed in which Silverdale doesn't incorporate until 2022. This second scenario, and the accompanying revenue impacts to the County, is addressed in Section 4.6 Impacts of Reduced Levels of Annexation.
- This analysis assumes, based on conversations with County staff, that the Gorst UGA is annexed by the City of Bremerton in 2014.
- This analysis assumes that the cities in Kitsap County will annex all commercial areas in their UGAs, but other than the Gorst UGA, will not annex any additional residential areas.

Real Estate Growth Assumptions. This analysis makes assumptions about the growth in assessed value of real estate, which affects both Real Estate Excise Tax (REET) revenues and the Conservation Futures Levy that supports Park capital projects. There are two pieces to projecting future real estate:

- **Escalation Rate of Assessed Values**. Given that the real estate market has been flat to declining over the last four years, this analysis assumes that real estate assessed values will not increase in 2013 and 2014, and will return to a rate of increase of 3.0% beginning in 2015. This rate of increase, which reflects a level similar to but slightly lower than long-term historical average levels of growth.
- **Turnover Rate of Properties**. The current rate of real estate sales is also slow due to the depressed real estate market. To be conservative, this analysis assumes a turnover rate of 2.5% for residential properties and 2.0% for commercial properties in 2012, growing toward a more typical level of 5.0% for residential properties and 3.5% for commercial properties by 2018.

It is important to note that the assumptions being used for this revenue analysis may not align with the County's budget assumptions regarding the same sources of revenue. The assumptions differ because the purposes of the two analyses are different: the purpose of the County' budget is to estimate how much money the County will have available to spend in the coming fiscal year; the purpose of this CFP revenue analysis is to estimate how much money the County is likely to receive in total over the next six and thirteen years. Therefore, the County's budgeting process works to estimate how much money will be received in a given year, while this revenue analysis estimates long-term averages.

4.3 Dedicated Capital Revenues

Transportation

State Motor Vehicle Fuel Tax

Counties and cities receive a portion of the State Motor Vehicle Fuel (MVF) Tax based on a complex reimbursement formula based largely on road miles within the jurisdiction. State MVF Tax rates saw a series of voter-approved increases in past years. Most of those additional funds, however, were earmarked for specific transportation projects throughout the State, and local jurisdictions did not see a noticeable increase in average revenues. In addition, the last increase was in 2008 and no increase in the state rate is expected again in the near future.

Assumptions: Revenues in this category have been projected using estimated revenues per centerline miles of road in the unincorporated county. There are two counter forces changing miles of road within this area. Road miles increase as the County builds new roads and expands current ones, and road miles decrease in the unincorporated areas through annexation and incorporation.

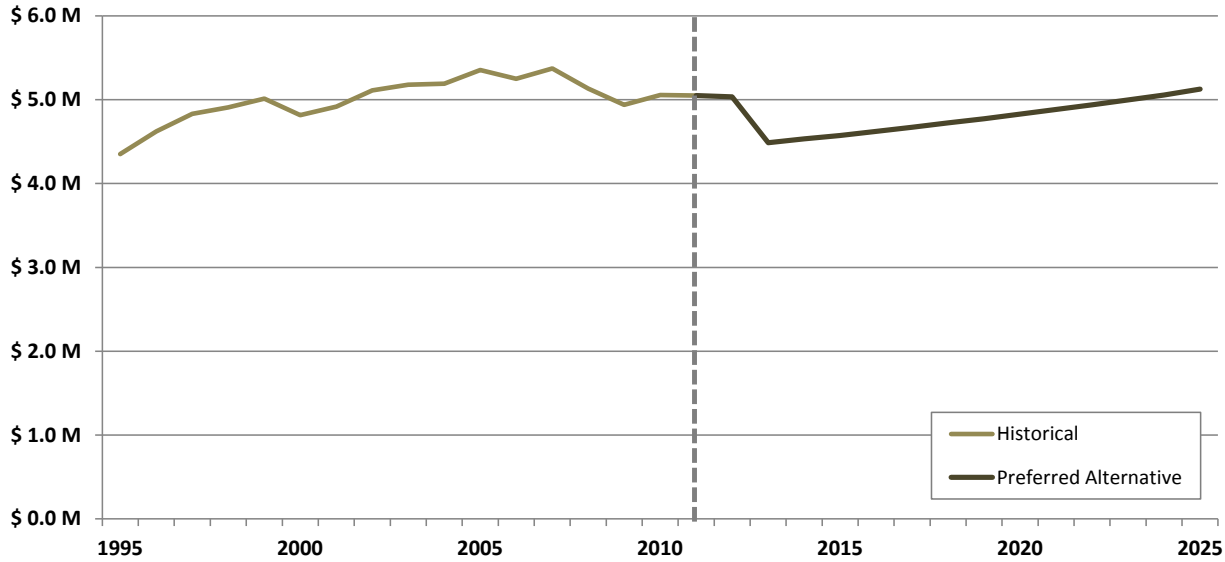
To account for both of these forces, this analysis uses recent historical trends in centerline miles of roads as they relate to population in the unincorporated County to increase total lane miles annually. As UGAs or portions of UGAs are annexed, miles are subtracted from the unincorporated total in approximate proportion to the unincorporated acres being annexed.

MVF Tax revenues *per mile of road* are assumed to remain flat over the study period. MVF Tax revenue increases have slowed statewide in recent years, due to the economy and other factors such as increasing fuel prices, more fuel efficient vehicles, and the increasing emergence of hybrid and alternative-fuel cars. To be conservative, this analysis assumes no growth in fuel tax revenues per road mile. This assumption results in future projections that grow more slowly than the rate of inflation, resulting in decreasing purchasing power over time. Even by the end of the thirteen-year planning period, annual revenues are estimated to be lower than pre-recession levels.

Kitsap County has historically put all of its MVF Tax revenues into its capital road fund, and this analysis assumed that trend will continue going forward.

Exhibit 3 shows historical motor vehicle fuel tax revenues to the left of the dotted line and projected future revenues to the right. The significant revenue drop in 2012 is due to the assumed incorporation of the Silverdale UGA, which would reduce the number of unincorporated lane miles in the County. Beyond 2012, revenues are estimated to increase as lane miles in unincorporated areas increase with population growth.

Exhibit 3
Kitsap County Motor Vehicle Fuel Tax Revenues Allocated for Capital
(1995-2025 in Year of Expenditure Dollars (YOE)*)



Source: Kitsap County, 2012; Washington State Department of Transportation, 2012; and BERK, 2012.
* Year of Expenditure dollars means that the estimated future revenue is expressed in terms of the dollar amount that will be received in each year, and is not adjusted for inflation.

Exhibit 4 shows estimated total MVF Tax revenues available for capital for the planning period as well as for two subtotal time periods.

Exhibit 4
Projected Kitsap County Motor Vehicle Fuel Tax Revenues Allocated to Capital
(2013-2025 in YOE$)

Motor Vehicle Fuel Tax Revenues	Subtotal 2013-2018	Subtotal 2019-2025	Total 2013-2025
Preferred Alternative	27,612,595	34,607,340	**62,219,935**

Source: Kitsap County, 2012; Washington State Department of Transportation, 2012; and BERK, 2012.

Transportation Impact Fees

Road Impact fees are a financing tool that requires new development to pay a portion of costs associated with infrastructure improvements that are "reasonably" related to the new development. GMA allows agencies to develop and implement a transportation impact fee program to help fund some of the costs of transportation facilities needed to accommodate growth. The use of impact fees is somewhat limited, in that the revenues must be spent on projects related to improvements that serve new development and not existing deficiencies, assessed proportionally to the impacts of new developments, and spent on facilities that are identified in the County's adopted CFP. Impact fee revenues must also be spent on allowable projects within six years of being collected.

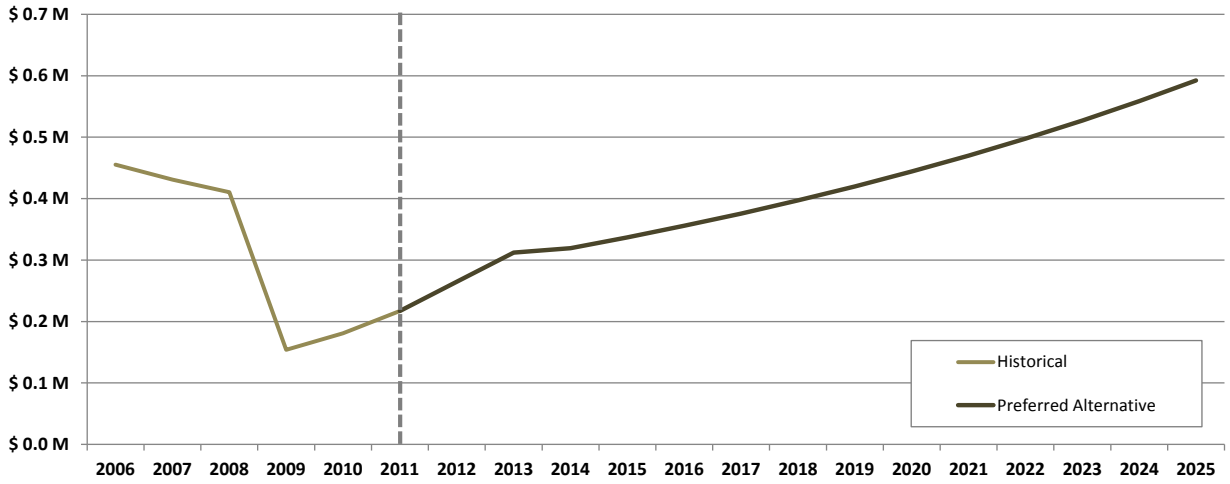
Kitsap County currently charges transportation impact fees according to an adopted rate structure (authorized by Kitsap County Code 4.110.200). Kitsap County has four geographically defined road service areas to organize impact fees on a regional basis and, if necessary, charge differential rates. Currently, the rates are the same in all service areas. There is an additional county-wide service area that receives revenues from each of the four geographic areas.

Assumptions. Since impact fees are related to new development, this analysis projects future revenues based on expected rates of new construction. Historical revenues and construction levels were analyzed to understand the relationship between impact fees and new construction, and this relationship was used to project revenues going

forward. Over the last six years (2006-2011) the County has received about $0.65 in road impact fees for every $1,000 of new construction assessed value (AV). To conservatively estimate these revenues going forward, this relationship is estimated to stay the same. Therefore, road impact fee revenues are assumed to grow proportionally to new construction AV. This analysis does not assume any future rate adjustments, although rates are likely to be reviewed, and perhaps adjusted, by the County every few years based on future project needs.

Exhibit 5 shows both historical and estimated future transportation impact fee revenues in Kitsap County. The sharp dip in revenues between 2006 and 2009 was due to a sharp decrease in construction as a response to the economic recession and the reduction in demand for new real estate properties. It is expected that the County will not see impact fee revenues equal to those collected in 2006 until sometime in the early 2020s.

Exhibit 5
Kitsap County Transportation Impact Fees
(2006-2025 in YOE$)



Source: Kitsap County, 2012; and BERK, 2012.

Exhibit 6 summarizes estimated future revenues for two subtotal time periods as well as for the entire 2013-2025 planning horizon.

Exhibit 6
Projected Transportation Impact Fee Revenues
(2013-2025 in YOE$)

Trans. Impact Fees	Subtotal 2013-2018	Subtotal 2019-2025	Total 2013-2025
Preferred Alternative	2,097,284	3,509,491	**5,606,775**

Source: Kitsap County, 2012; and BERK, 2012.

State Transportation Grants

Grants are an important funding source for transportation capital projects; however, these funds are distributed in a competitive process making it difficult to determine future grant funding levels. State grants are primarily funded with the state-levied portion of the MVF Tax.

As mentioned in the MVF Tax section, there were, in past years, increases in the State MVF Tax rate. However, many of these additional funds were earmarked for specific large projects, although there was some allocation to local jurisdictions. The Transportation Partnership Act of 2005 provided some additional funds to the Transportation Improvement Board and the County Road Administration Board, for a total of $80 million to be disbursed to local jurisdictions as grants over a 16-year period. However, these increases in funds were very small relative to demand, with requests to the Transportation Improvement Board exceeding available funds by 800%.

For this analysis, recent historical grant revenue trends were considered. However, because the current grant-funding climate is shifting due to a slowing of the annual increase in MVF Tax revenues, future revenues have been estimated to be lower than recent trends. This is due, in part, to other financial forces.

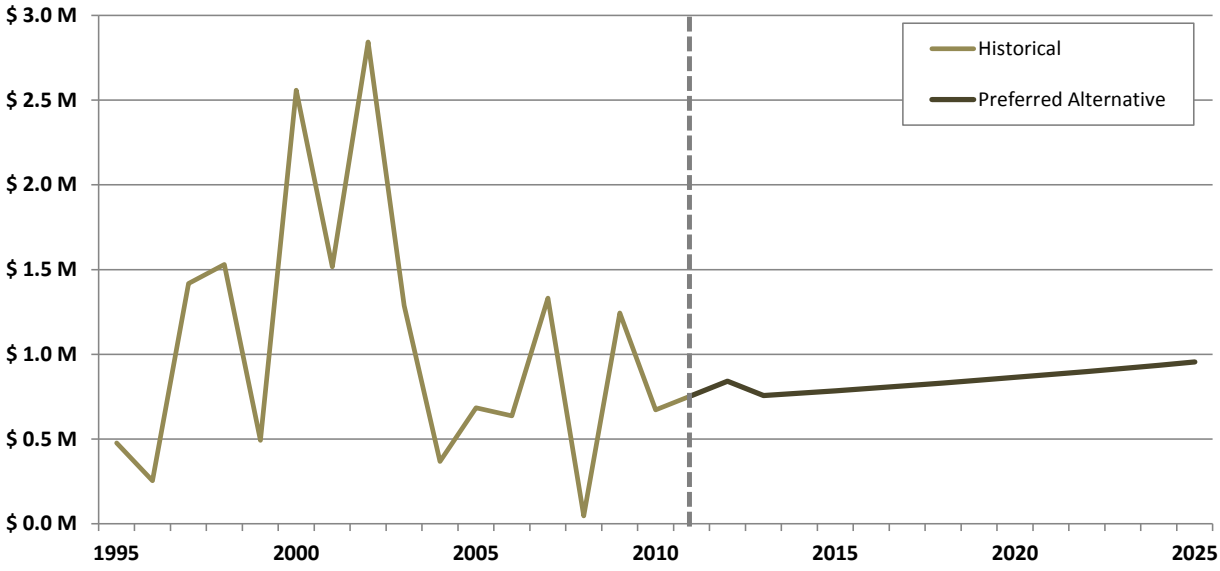
One of those forces is the passing of I-747. Because jurisdictions within the State have had their property tax capped at a rate (1.0%) lower than inflation (approximately 3.0%), inflation-adjusted revenues are declining each year. This impacts transportation spending in two ways. First, property tax funds that are collected for transportation spending (County Road Levies) are able to purchase less each year. Second, property tax funds that are non-restricted and are used for other jurisdictional necessities are also declining. Cities and counties must often pull from non-restricted funds that were going towards capital projects and put them towards other immediate needs. This creates a second tightening of funds available for capital.

Because jurisdictions are feeling the squeeze these forces are putting on their capital funding programs, they are competing for, and relying more heavily on, grants. As more jurisdictions compete, securing grant funding becomes more difficult.

Assumptions: These revenues have been estimated on a per capita basis on the assumption that over time a jurisdiction will generally receive its "fair share" of available grant revenues. Since 1988 Kitsap County has averaged $4.91 per capita in grant revenues per year. In the past decade, the County has received about $5.50 per capita in state grant revenues since 2002. Given the forces discussed previously, this analysis assumes $5.00 per capita in the future with no annual increases. Total revenues will therefore change on pace with changes in the County's unincorporated population.

Exhibit 7 shows historical state grant revenues to the left of the dotted line, and projected revenues to the right. An average annual dollar amount is assumed in each year for this analysis. However, in reality these dollars will vary greatly from year to year and will likely resemble the trend of peaks and valleys shown in historical data. While using an annual average does not fully represent the County's future cash flow of grant dollars, it approximates how many total dollars will be received over the study period.

Exhibit 7
Kitsap County State Transportation Grant Revenues Allocated for Capital Projects
(1995-2025 in YOE$)



Source: Kitsap County, 2012; Washington State Department of Transportation, 2012; and BERK, 2012.

Exhibit 8 shows estimated total state grant revenues in two subtotal periods as well as over the whole planning timeframe of 2013-2025.

Exhibit 8
Projected State Transportation Grant Revenues for Capital Projects
(2013-2025 in YOE$)

State Transportation Grants	Subtotal 2013-2018	Subtotal 2019-2025	Total 2013-2025
Preferred Alternative	4,756,968	6,297,131	**11,054,099**

Source: Washington State Department of Transportation, 2011; and BERK, 2012.

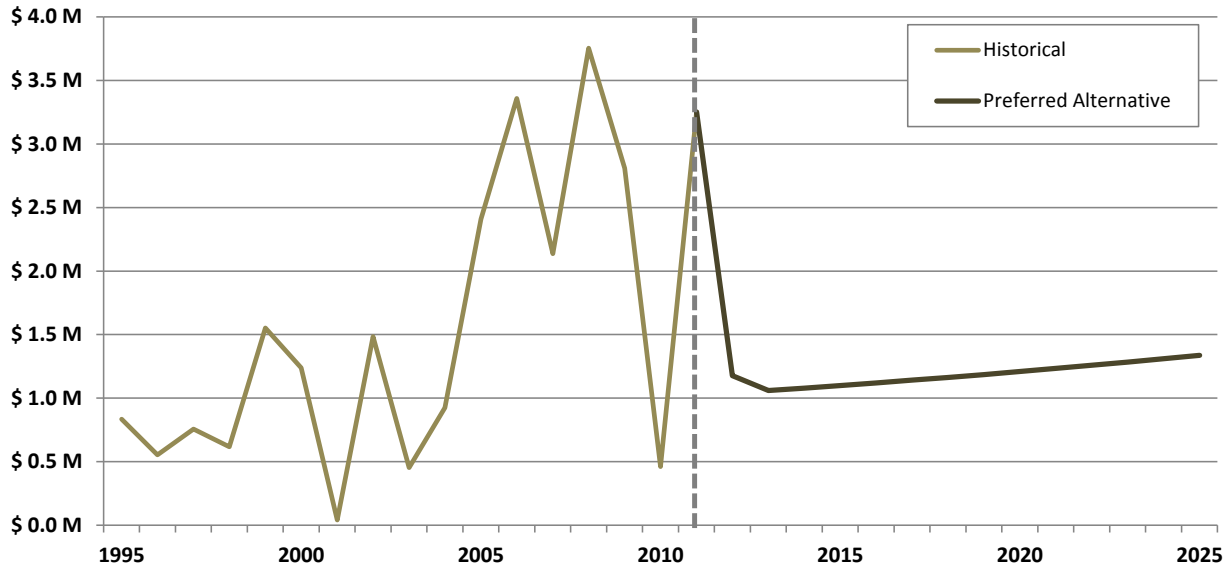
Federal Transportation Grants

Federal transportation grants are funded through the federal portion of the fuel excise tax. The federal gas tax rate has fluctuated between $0.183 and $0.184 per gallon since 1994. The majority of these funds are deposited into the Highway Trust Fund and disbursed to the states through the Highway and Mass Transit Accounts. As with state grants, these funds are distributed in a competitive process making it difficult to determine future grant funding levels.

Assumptions: Because of this increase in competition for grant dollars and decrease in available grant funds, grant revenues have been estimated at lower levels than recent historical rates. Since 1988, Kitsap County has received an annual average of $7.16 per capita of federal grant funding. This average has been slightly higher in recent years, but that trend is not expected to continue. This analysis estimates Future average annual per capita federal grant dollars were estimated at $7.00 with no annual increase. As with state grant dollars, changes in total revenues are expected to occur at the rate of change in the population.

Exhibit 9 shows historical federal grant revenues to the left of the dotted line, and projected revenues to the right. An average annual dollar amount is assumed in each year for this analysis. However, in reality these dollars will vary greatly from year to year and will likely resemble the trend of peaks and valleys shown in historical data. While using an annual average does not fully represent the County's future cash flow of grant dollars, it approximates how many total dollars will be received over the study period.

Exhibit 9
Kitsap County Federal Transportation Grant Revenues Allocated for Capital Projects
(1995-2025 in YOE$)



Source: Kitsap County, 2012; Washington State Department of Transportation, 2012; and BERK, 2012.

Exhibit 10 shows estimated total federal grant revenues in two subtotal periods as well as for the entire 2013-2025 planning period.

Exhibit 10
Projected Federal Transportation Grant Revenues for Capital Projects
(2013-2025 in YOE$)

Federal Transportation Grants	Subtotal 2013-2018	Subtotal 2019-2025	Total 2013-2025
Preferred Alternative	6,659,756	8,815,984	**15,475,739**

Source: Kitsap County, 2012; Washington State Department of Transportation, 2012; and BERK, 2012.

Total Estimated Transportation Revenues

Exhibit 11 shows total projected dedicated transportation revenues for Kitsap County for the planning period and two interim subtotal periods. The County currently has a fund balance of about $7.3 million in the county road construction fund and about $1.9 million in total fund balances in the four road impact fee funds. These dollars are available for spending on transportation capital projects over the planning period, which is reflected in the final column of Exhibit 11. It is important to note that these totals include impact fee revenues, which have limitations described in the Transportation Impact Fees section above, including that they are limited to spending on projects that serve new development and must be spent within six years of collection.

Exhibit 11
Projected Total Transportation Revenues Allocated for Capital
(2013-2025 in YOE$)

Total Transportation	Subtotal 2013-2018	Subtotal 2019-2025	Revenue Total 2013-2025	Total with 2012 Fund Balances
No Action Alternative	41,126,603	53,229,946	**94,356,548**	**103,515,660**

Source: Kitsap County, 2012; Washington State Department of Transportation, 2012; and BERK, 2012.

Parks

Parks Impact Fees

Similar to the transportation impact fees described above, a County can impose impact fees on new residential developments to help fund needed capital parks projects to serve the new development. Impact fees can be used to pay the proportional share that each development benefits from public facilities, but cannot be used to correct existing deficiencies. Parks impact fees may only be charged on developments in unincorporated areas of the County.

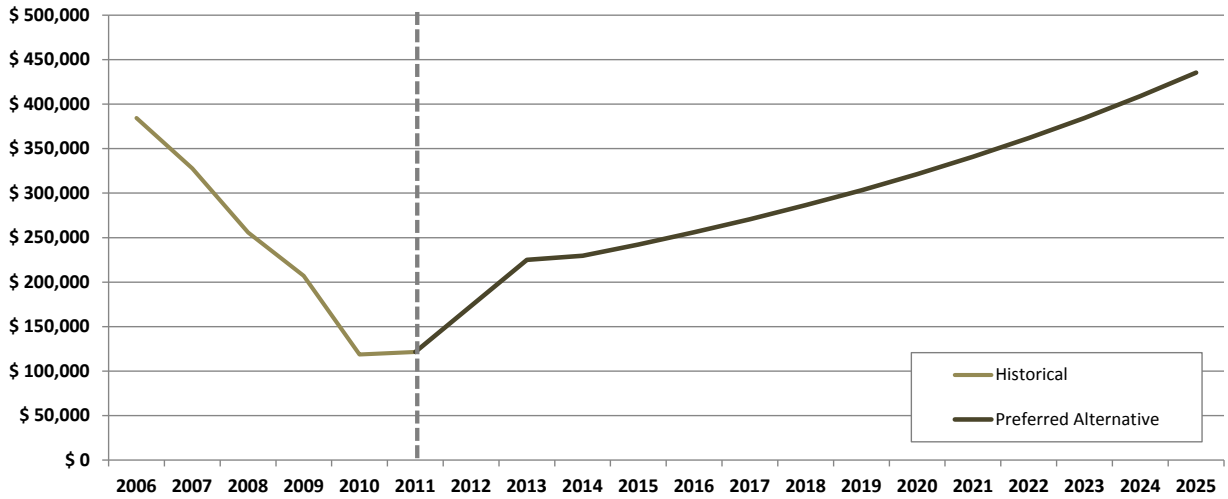
Impact fees can be used on development, site acquisition, or debt service for projects that serve a new development. Kitsap County currently imposes impact fees at the rates authorized in Kitsap County Code 4.110.210.

Assumptions. Since impact fees are related to new residential development, this analysis projects future revenues based on expected rates of new residential construction in the unincorporated area of the county. Historical revenues and construction levels were analyzed to understand the relationship between impact fees and new construction, and this relationship was used to project revenues going forward.

Over the last six years (2006-2011) the County has received about $0.85 in parks impact fees for every $1,000 of new construction Assessed Value. The recent economic downtown and the accompanying slowdown in residential construction have caused very low impact fee revenues in recent years. This analysis estimates that impact fee revenues will begin to grow again as the economy recovers. However, to conservatively estimate these revenues going forward, this analysis holds a constant relationship of $0.85 per $1,000 new construction AV and assumes no future rate adjustments. Therefore, parks impact fee revenues are only estimated to grow proportionally to new construction AV. As with transportation impact fees, this analysis does not assume any future rate adjustments, although rates are likely to be reviewed, and perhaps adjusted, by the County every few years based on future project needs.

Exhibit 12 shows historical park impact fee revenues to the left of the dotted line and estimated future revenues to the right.

Exhibit 12
Kitsap County Park Impact Fees
(2006-2025 in YOE$)



Source: Kitsap County, 2012; and BERK, 2012.

Exhibit 13 shows future estimated park impact fee revenues for two subtotal time periods as well as for the entire planning timeframe (2013-2025). Currently, the County is using park impact fee revenues to pay the debt service for capital bonds. In total, about $2.7 million of future park revenues is currently slated to go toward debt service payments. The remaining amount is available for future parks capital projects.

Exhibit 13
Projected Kitsap County Park Impact Fee Revenues
(2013-2025 in YOE$)

Parks Impact Fees	Subtotal 2013-2018	Subtotal 2019-2025	Total 2013-2025
Estimated Revenues			
Preferred Alternative	1,509,774	2,556,409	**4,066,183**
Amount Committed to Debt Service	*1,269,556*	*1,466,052*	*2,735,608*
Available Revenues			
Preferred Alternative	240,218	1,090,357	**1,330,575**

Source: Kitsap County, 2012; and BERK, 2012.

Conservation Futures Tax

The Conservation Futures Tax is a property tax assessed on all taxable property in Kitsap County, including both incorporated and unincorporated areas. According to state laws (RCWs 84.34.210 and 84.34.220) revenues from this tax may be used for acquisition of open space land, farm and agricultural land, and timber land. This tax has become an important piece of Kitsap County's parks funding as it has remained fairly stable even as impact fee revenues have declined. However, much of this revenue is currently dedicated to paying off bonds that won't be retired until 2024.

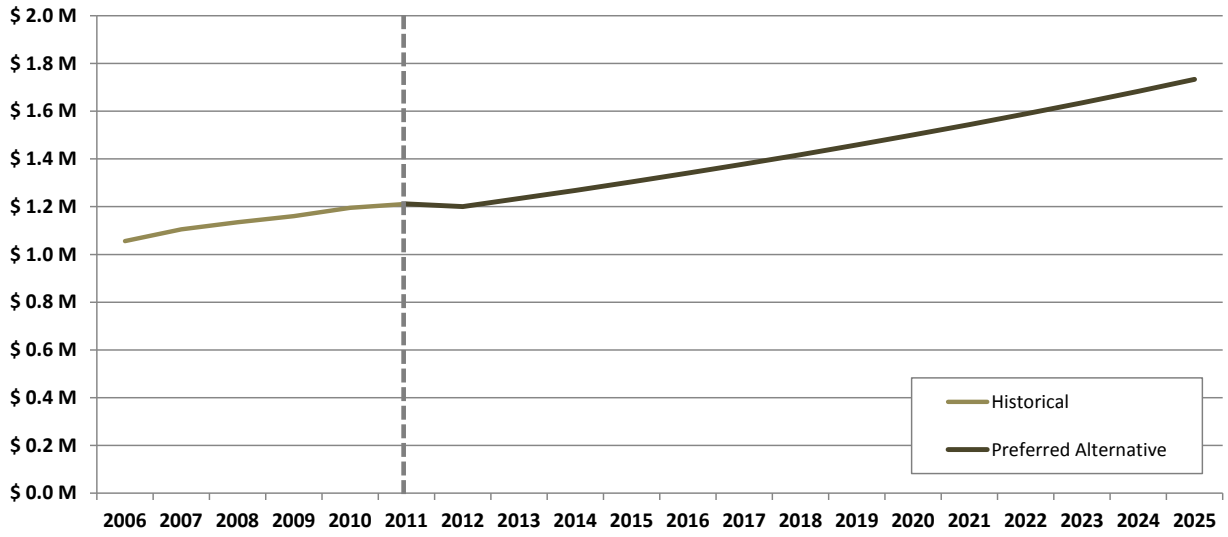
Property tax revenues were significantly impacted by the passage of Initiative 747 in 2001, which limits property tax collections increases to 1.0% of the previous year's revenues plus new construction. In inflation-adjusted

terms, revenues from property tax are actually declining, since the 1.0% allowable increase does not keep pace with inflation (which has averaged about 3.0% in the recent past) or with population growth.

Assumptions. Because real estate is currently appreciating more slowly than historical averages, this analysis assumes no growth in assessed values for 2013 and 2014, increasing to 3.0% annually by 2015, which is more in line with historical averages. The current levy rate for the conservation futures tax is 0.046 per $1,000 of assessed value countywide. Because assessed value increases each year faster than 1.0% while levy revenues are only allowed to increase at 1.0% plus new construction, the levy rate necessarily declines each year. Kitsap County is currently collecting the maximum revenue each year at its current rate, including the 1% growth. The only way it could receive additional revenues beyond what is projected below is to pass a voter-approved levy increase.

Exhibit 14 shows historical conservation futures tax revenues to the left of the dotted line and estimated future revenues to the right.

Exhibit 14
Kitsap County Conservation Futures Tax Revenues
(2006-2025 in YOE$)



Source: Kitsap County, 2012; and BERK, 2012.

Exhibit 15 shows estimated future revenues for the conservation futures tax for two subtotal time periods as well as the whole planning timeframe. Currently, the County is using these revenues to pay debt service for capital bonds. In total, about $10.2 million of projected conservation futures revenues is currently slated to go toward debt service payments. The remaining amount is available for future parks capital projects.

Exhibit 15
Projected Kitsap County Conservation Futures Tax Revenues
(2013-2015 in YOE$)

Conservation Futures Tax	Subtotal 2013-2018	Subtotal 2019-2025	Total 2013-2025
Estimated Revenues			
Preferred Alternative	7,944,335	11,144,666	**19,089,001**
Amount Committed to Debt Service	*4,970,782*	*5,250,206*	*10,220,988*
Available Revenues			
Preferred Alternative	2,973,553	5,894,460	**8,868,013**

Source: Kitsap County, 2012; and BERK, 2012.

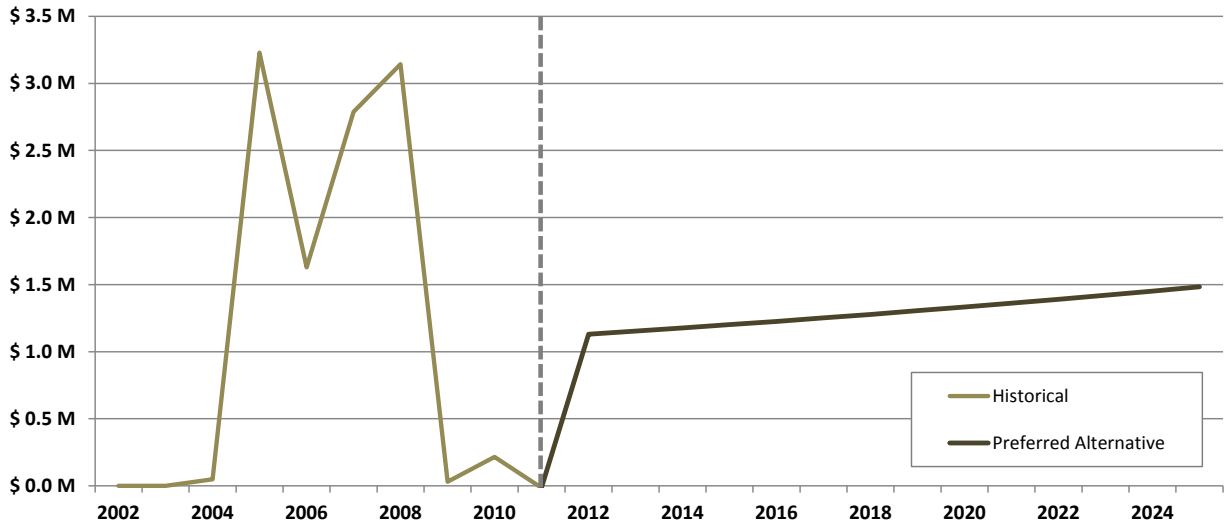
Grants and Donations

Additional revenues for parks capital projects and acquisitions generally comes from state grants, federal grants, and donations. State grants, which usually come from the Washington State Recreation and Conservation Office (RCO), make up the largest of these three sources.

Assumptions. Because grants are competed for on a state or national level, this analysis estimates these revenues on a per capita basis on the assumption that over time a jurisdiction will generally receive its "fair share" of available grant revenues. Over the last decade (2002-2011), the County has received about $4.50 per capita in combined state and federal grant and donation revenues. To be conservative, this ratio is held constant in the future so grant revenues increase in proportion to countywide population increases.

Exhibit 16 shows historical revenues to the left of the dotted line and estimated future revenues to the right. An average annual dollar amount is assumed in each year for this analysis. However, in reality these dollars will vary greatly from year to year and will likely resemble the trend of peaks and valleys shown in historical data. While using an annual average does not fully represent the County's future cash flow of grant dollars, it approximates how many total dollars will be received over the study period.

Exhibit 16
Kitsap County Parks Grants and Donations Revenues
(2002-2025 in YOE$)



Source: Kitsap County, 2012; and BERK, 2012.

Exhibit 17 summarizes the County's projected parks grant and donation revenues in two summary time periods as well as for the entire planning horizon.

Exhibit 17
Projected Kitsap County Parks Grants and Donations Revenues
(2013-2025 in YOE$)

Parks Grants and Donations	Subtotal 2013-2018	Subtotal 2019-2025	Total 2013-2025
Preferred Alternative	7,286,459	9,746,073	**17,032,533**

Source: Kitsap County, 2012; and BERK, 2012.

Total Estimated Parks Revenues

Exhibit 18 shows total projected parks capital revenues for the planning period, including impact fees, conservation futures tax, grants, and donations. The County currently has a fund balance of about $3.3 million in its two primary parks capital funds. These dollars are available for spending on parks capital projects over the planning period, which is reflected in the final column of Exhibit 18.

Exhibit 18
Projected Total Kitsap County Revenues Dedicated to Parks Capital Projects
(2013-2025 in YOE$)

Total Parks	Subtotal 2013-2018	Subtotal 2019-2025	Revenue Total 2013-2025	Total with 2012 Fund Balances
Estimated Revenues				
Preferred Alternative	16,740,568	23,447,148	**40,187,716**	**43,499,377**
Amount Committed to Debt Service	*6,240,338*	*6,716,258*	*12,956,596*	*12,956,596*
Available Revenues				
Preferred Alternative	10,500,230	16,730,890	**27,231,120**	**30,542,781**

Source: Kitsap County, 2012; and BERK, 2012.

Sewer

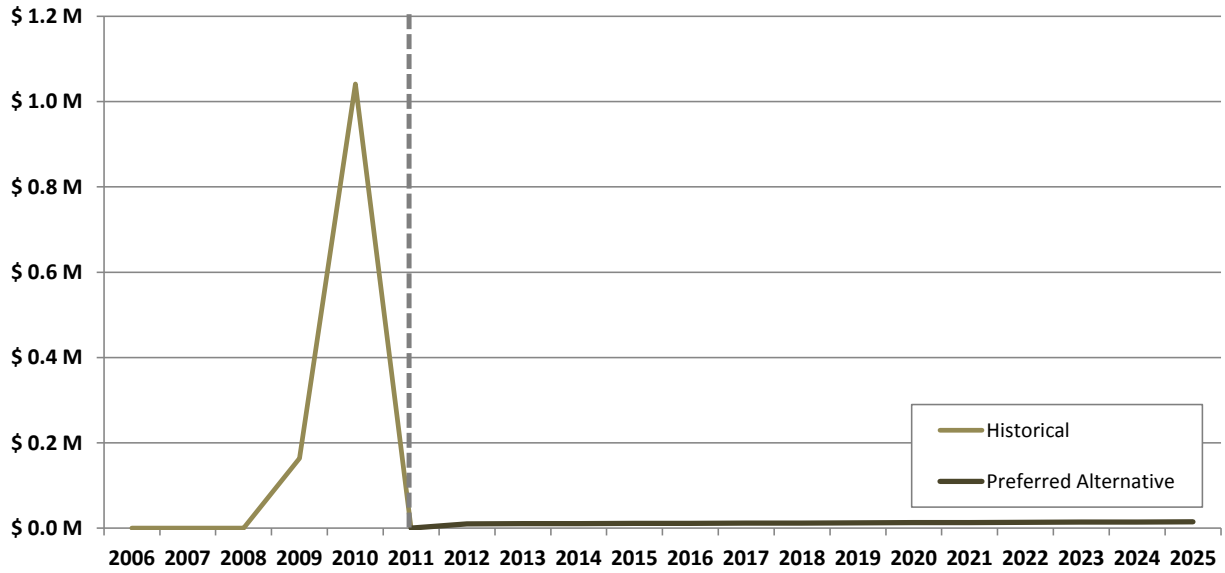
State Grants

Kitsap County receives grants from the state to help fund sewer capital projects. These grants are project-specific and therefore do not occur on a regular basis. In the timeframe for which historical revenues were available for this analysis (2006-2011), the County only received capital sewer grants in two of the years.

Assumptions. Based on discussions with the Kitsap County Sewer Utility Manager, grant revenues received over the last six years have been higher than historical averages, and higher than the County expects to receive going forward. Estimated future revenues have been based on an assumption that the county will receive about $10,000 per year in state sewer capital grants, growing at an estimated future inflation rate of 3.0%.

Exhibit 19 shows historical revenues to the left of the dotted line and estimated future revenues to the right. Although this analysis estimates revenues as an annual average, grants will be received intermittently on a project-specific basis.

Exhibit 19
Kitsap County State Sewer Grant Revenues
(2006-2025 in YOE$)



Source: Kitsap County, 2012; and BERK, 2012.

Exhibit 20 summarizes the estimated future revenues by two summary time periods as well as for the entire CFP horizon.

Exhibit 20
Projected Kitsap County State Sewer Grant Revenues
(2013-2025 in YOE$)

Sewer Grants	Subtotal 2013-2018	Subtotal 2019-2025	Total 2013-2025
Preferred Alternative	66,625	94,239	**160,863**

Source: Kitsap County, 2012; and BERK, 2012.

Sewer Hook-up Fees

Sewer hook-up fees (also known as newcomer's fees) are charged when a new person or entity wants to connect a property to an existing county sewage system. The logic behind the newcomer's fee is that it represents the new connection's proportionate share of future expansion of the major components of the existing sewage system. The amount of the fee varies based on the type of property and/or the number of dwelling units.

Hook-up fees for the majority of Kitsap County sewer service area residents are deposited into the non-capital Sewer Improvement Fund and only transferred for capital use when needed. The only hook-up fees that are automatically allocated to capital are from newcomers in the City of Poulsbo; this revenue is deposited in the County's sewer capital fund. Because of this, historical Poulsbo sewer fees are used as a basis for analysis of future capital revenue.

It is important to note that hook-up fees from the City of Poulsbo are restricted to use on projects that benefit sewer customers within the City of Poulsbo. Any sewer projects that do not benefit Poulsbo residents would need to be funded through transfers from non-dedicated capital funds.

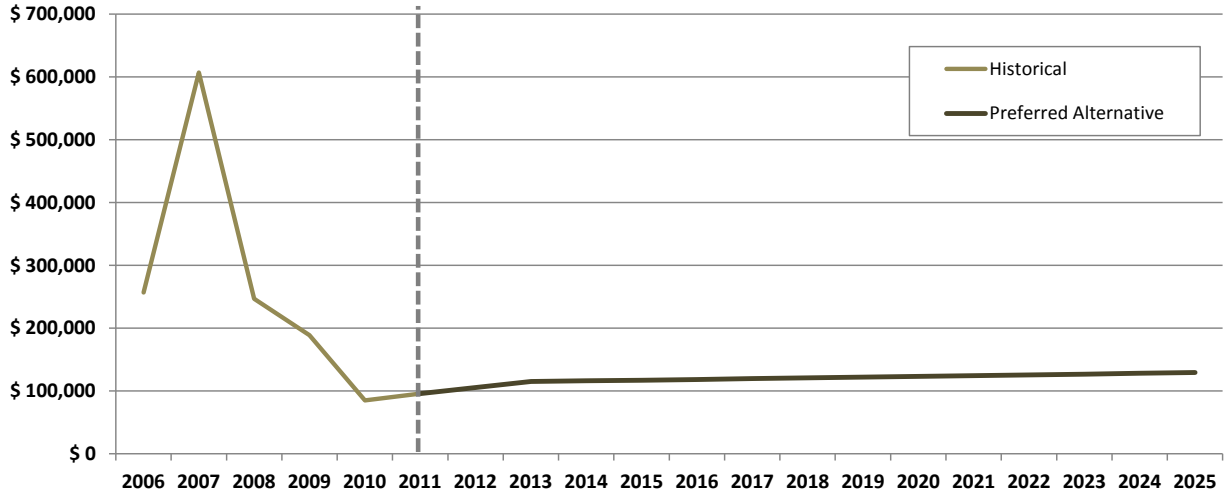
Assumptions. Hook-up fees are generated by new sewer connections, which vary by the type of new development, as well as when existing properties want to make a new connection to the sewer system. Making assumptions about the rate of existing properties connecting to the sewer system is complicated and difficult to estimate. This

analysis instead focuses on how new development relates to hook-up fees, since new developments represent the majority share of hook-up fees paid.

This analysis bases expected future revenues on the relationship between new housing development in the City of Poulsbo, as a proxy for total development activity, and the level of hook-up fees. Over the last six years (2006-2011), the County has received about $2,800 per new housing unit within the City. This analysis assumes that this relationship will continue in the future, and hook-up fees will grow in relation to housing growth in the City of Poulsbo.

Exhibit 21 shows historical hook-up fee revenues allocated for capital to the left of the dotted line and estimated future revenues to the right. This analysis estimates future revenues using an assumption of linear growth in households between 2013 and 2025. However, actual revenues in any given year will vary based on construction completed in that particular year and will likely exhibit peaks and valleys similar to the historical trend. Exhibit 21 estimates the annual average over the entire planning period.

Exhibit 21
Kitsap County Sewer Hook-up Fees Allocated for Capital
(2007-2025 in YOE$)



Source: Kitsap County, 2012; and BERK, 2012.

Exhibit 22 summarizes total future estimated sewer hook-up fee revenues from the City of Poulsbo for the 2013-2025 planning period, and shows two subtotal periods.

Exhibit 22
Projected Sewer Hook-Up Fee Revenues Allocated for Capital
(2013-2025 in YOE$)

Sewer Grants	Subtotal 2013-2018	Subtotal 2019-2025	Total 2013-2025
Preferred Alternative	707,536	880,064	**1,587,600**

Source: Kitsap County, 2012; and BERK, 2012.

Total Estimated Sewer Revenues

Exhibit 23 shows total estimated revenues available for sewer capital projects over the planning period, including both sewer hook-up fees and state grants. Additionally, the County currently has a large fund balance of about $30.9 million dollars in its sewer capital fund. These dollars are also available to cover planned sewer projects during the 2013-2025 time period.

Exhibit 23
Total Projected Sewer Revenues Allocated for Capital
(2013-2025 in YOE$)

Total Sewer	Subtotal 2013-2018	Subtotal 2019-2025	Revenue Total 2013-2025	Total with 2012 Fund Balances
Preferred Alternative	774,160	974,303	**1,748,463**	**32,629,712**

Source: Kitsap County, 2012; and BERK, 2012.

Surface and Storm Water Management

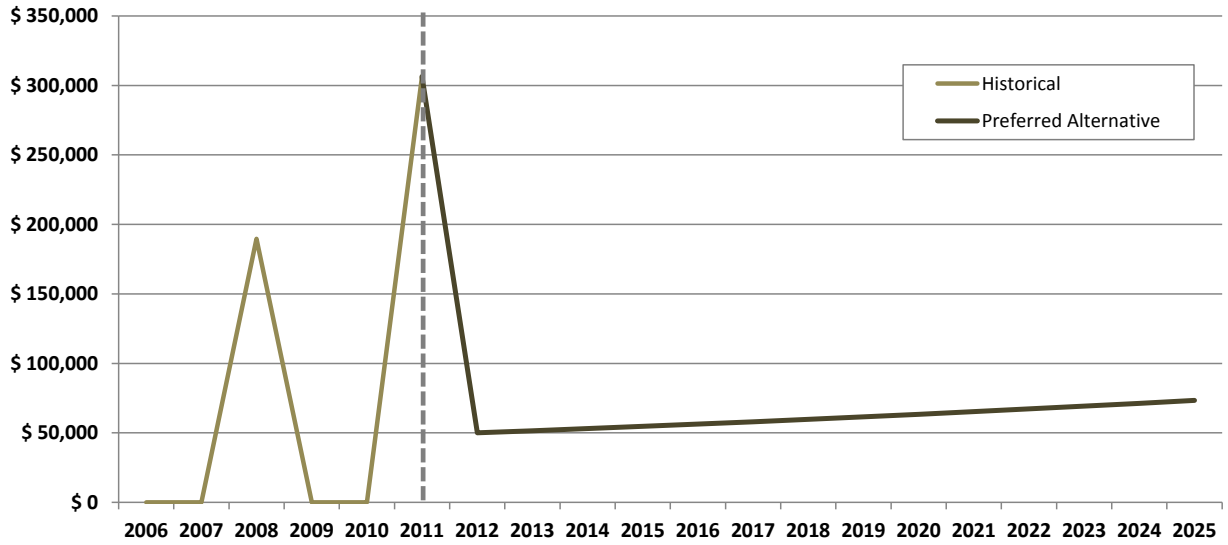
State and Federal Grants

The County receives state and federal grants to support specific Surface and Storm Water Management (SSWM) capital projects. The historical data available for this analysis only had two years in which the County received grant funds. Due to the lack of historical data to analyze, future revenue estimates are based on assumptions developed with the help of appropriate Kitsap County Public Works staff.

Assumptions. Kitsap County Public Works staff advised that recent years have not been very indicative of overall historical trends. Staff recommended that, for the purposes of these planning-level revenue projections, this analysis should assume total combined state and federal SSWM grant revenues of about $50,000 per year, growing at an estimated future inflation rate of 3.0%.

Exhibit 24 shows historical SSWM grants to the left of the dotted line and estimated future revenues to the right. An average annual dollar amount is assumed in each year for this analysis. However, in reality these dollars will vary greatly from year to year and will likely resemble the trend of peaks and valleys shown in historical data. While using an annual average does not fully represent the County's future cash flow of grant dollars, it approximates how many total dollars will be received over the study period.

Exhibit 24
Kitsap County Surface and Storm Water Management Grant Revenues
(2006-2025 in YOE$)



Source: Kitsap County, 2012; and BERK, 2012.

Exhibit 25 summarizes projected revenues for the planning period as well as two subtotal time periods.

Exhibit 25
Projected Surface and Storm Water Management Grant Revenues
(2013-2025 in YOE$)

SSWM Grants	Subtotal 2013-2018	Subtotal 2019-2025	Total 2013-2025
Preferred Alternative	333,123	471,193	**804,316**

Source: Kitsap County, 2012; and BERK, 2012.

Surface and Storm Water Management Fees

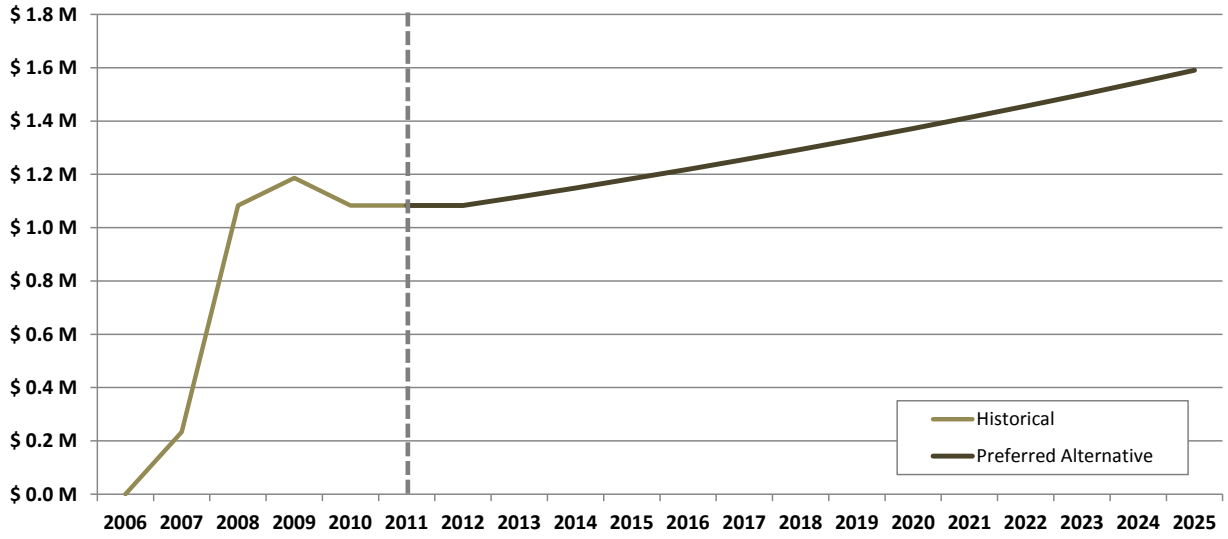
The County charges SSWM fees to those served by or receiving benefits from County drainage facilities or contributing to surface water runoff within the County. Rates are based on the current use of a property (such as residential, commercial, or roadway, etc.) as well as the size of the establishment in terms of square footage, number of dwelling units, or impervious surface area.

SSWM fee revenues can be used for both operations and maintenance of SSWM facilities as well as SSWM capital projects. The amount of fee revenue that goes into the SSWM capital funds is based on County policy.

Assumptions. The County currently puts about $1.1 million per year of its SSWM rate revenues into its SSWM capital funds: $850,000 into the SSWM Program Capital Fund and $230,000 into the SSWM Asset Replacement Fund. This analysis assumes that this level of fee contribution to capital projects will continue going forward and will increase at about 3.0% annually due to inflation and rate increases. This assumption is based on conversations with County staff.

Exhibit 26 shows historical revenues allocated for capital to the left of the dotted line and estimated future revenues to the right. The County began transferring $230,000 per year into the SSWM Asset Replacement Fund beginning in 2007 and added $850,000 per year to the SSWM Program Capital Fund beginning in 2008.

Exhibit 26
Kitsap County Surface and Storm Water Management Fee Revenues Allocated to Capital
(2006-2025 in YOE$)



Source: Kitsap County, 2012; and BERK, 2012.

Exhibit 27 summarizes total estimated fee revenues allocated for capital for 2013-2025 as well as two interim summary time periods

Exhibit 27
Projected Kitsap County Surface and Storm Water Management Fee Revenues Allocated to Capital
(2013-2025 in YOE$)

SSWM Fees	Subtotal 2013-2018	Subtotal 2019-2025	Total 2013-2025
Preferred Alternative	7,216,113	10,206,985	**17,423,098**

Source: Kitsap County, 2012; and BERK, 2012.

Total Estimated Surface and Storm Water Management Revenues

Exhibit 28 shows total projected SSWM capital revenues for the planning period, including state and federal grants and management fees. The County currently has a starting fund balance of about $3.6 million between its two primary SSWM capital funds. These funds are available for capital projects over the planning period, as reflected in Exhibit 28.

Exhibit 28
Projected Total Kitsap County Revenues Allocated to SSWM Capital Projects
(2013-2025 in YOE$)

Total Surface and Storm Water Management	Subtotal 2013-2018	Subtotal 2019-2025	Revenue Total 2013-2025	Total with 2012 Fund Balances
Preferred Alternative	7,549,236	10,678,178	**18,227,414**	**21,846,891**

Source: Kitsap County, 2012; and BERK, 2012.

In addition to the dedicated revenue sources and starting capital fund balances, the County's SSWM CFP assumes that the County will make transfers from its SSWM operating funds of about $10.2 million to support SSWM capital expenses during this planning period.

4.4 General Capital Revenues

Real Estate Excise Tax

Real Estate Excise Tax (REET) revenues are collected upon the sale of real property and must be expended on capital projects. Since REET is based on the total value of real estate transactions in a given year, the amount of REET revenues a county receives can vary substantially from year to year based on the normal fluctuations in the real estate market. During years when the real estate market is active, revenues are high, and during softer real estate markets (as demonstrated in the last several years), revenues are lower.

Counties have the ability to impose up to two REET levies, REET I (the first 0.25%), and REET II (the second 0.25%), for a total tax of 0.5% of total assessed value. REET I and REET II revenues must be spent on capital projects that are listed in a county's current capital facilities plan. The definition of capital facilities, according to RCW 82.46.010 is:

> *those public works projects of a local government for planning, acquisition, construction, reconstruction, repair, replacement, rehabilitation, or improvement of streets; roads; highways; sidewalks; street and road lighting systems; traffic signals; bridges; domestic water systems; storm and sanitary sewer systems; parks; recreational facilities; law enforcement facilities; fire protection facilities; trails; libraries; administrative and judicial facilities...*

In addition to the above guidelines, REET II is further restricted, as it may not be spent on recreational facilities, law enforcement facilities, fire protection facilities, trails, libraries, or administrative or judicial facilities. (RCW 82.46.035)

It is up to the discretion of each jurisdiction to choose how to spend REET funds within the above parameters. Kitsap County is currently spending all of its REET revenues on bond payments to which the revenues are already

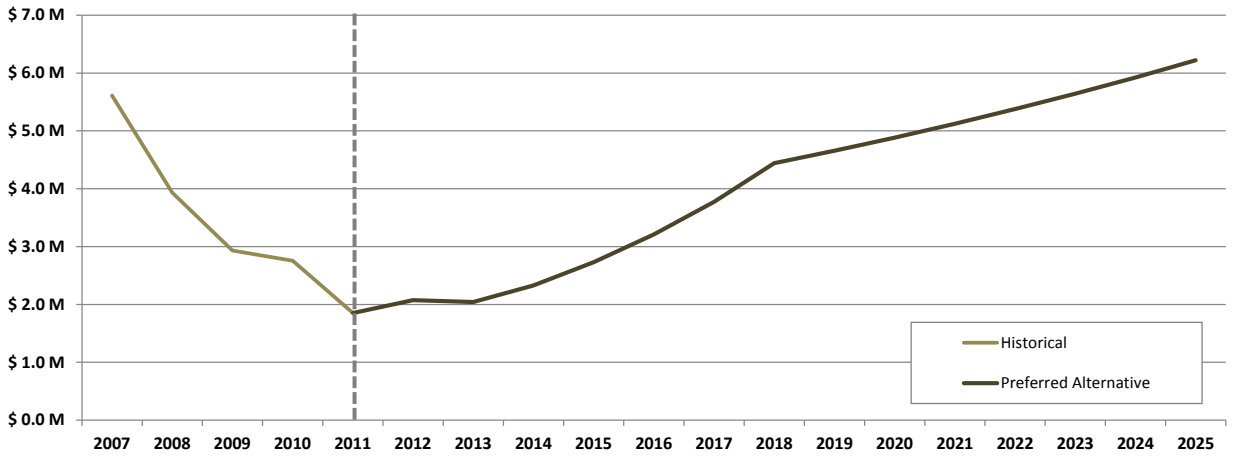
committed. This analysis estimates that the County won't have any significant REET funds to spend for other capital purposes until 2016.

Assumptions: Because REET dollars are directly related to the sale of real estate, which is in a slow period due to the ongoing economic recession, this analysis assumes a slower-than-average annual turnover rate of 2.5% for residential properties and 2.0% for commercial properties in 2012, growing toward a level more in line with long-term averages (5.0% for residential and 3.5% for commercial) by 2018, implying an six-year recovery period until real estate activity returns to historical averages.

Because REET revenues must be used for capital projects, this analysis assumes all REET revenues beyond those committed to existing bond payments are available for the capital projects discussed in this plan.

Exhibit 29 shows historical REET revenue to the left of the dotted line, and projected revenues to the right. This analysis projects that the County will not see REET revenues similar to those collected in 2007 until 2017 or 2018.

Exhibit 29
Kitsap County Real Estate Excise Tax Revenues
(2007-2025 in YOE$)



Source: Kitsap County, 2012; and BERK, 2012.

Exhibit 30 shows estimated total REET revenues in two subtotal periods as well as for the whole planning timeframe (2013-2025). The REET account currently has a total fund balance (REET I and REET II) of about $3.4 million, which is also available for general capital spending during the planning period. Additionally, some REET revenues, especially in the six-year period, are dedicated to paying off existing debt service payments and are not available for future projects.

Exhibit 30
Projected Kitsap County Real Estate Excise Tax Revenues
(2013-2025 in YOE$)

General Capital Revenues/REET	Subtotal 2013-2018	Subtotal 2019-2025	Revenue Total 2013-2025	Total with 2012 Fund Balances
Estimated Revenues				
Preferred Alternative	18,526,380	37,834,858	**56,361,238**	**59,732,559**
Amount Committed to Debt Service	*18,149,086*	*20,474,056*	*38,623,142*	*38,623,142*
Available Revenues				
Preferred Alternative	377,294	17,360,802	**17,738,096**	**21,109,417**

Source: Kitsap County, 2012; and BERK, 2012.

4.5 Total Capital Revenues

Exhibit 31 summarizes projected total capital revenues available over the planning period, including fund balances.

Exhibit 31
Projected Total Kitsap County Capital Revenues
(2013-2025 in YOE$)

Total Capital Revenues	Subtotal 2013-2018	Subtotal 2019-2025	Revenue Total 2013-2025	Total with 2012 Fund Balances
Estimated Revenues				
Preferred Alternative	84,716,947	126,164,433	**210,881,380**	**264,326,465**
Amount Committed to Debt Service	*24,389,424*	*27,190,314*	*51,579,738*	*51,579,738*
Available Revenues				
Preferred Alternative	60,327,523	98,974,119	**159,301,642**	**212,746,727**

Source: Kitsap County, 2012; Washington State Department of Transportation, 2012; and BERK, 2012.

4.6 Impact of Annexations

Based on the methodologies used for the revenue projections outlined above, rates of annexation will have an impact on the County's total available capital revenues. The two biggest variables are (1) when Silverdale will incorporate, and (2) whether the cities within the County will fully annex all of the commercial properties in their UGAs by 2025.

The analysis above assumes that Silverdale will incorporate in 2012. The table below shows an analysis of what the County's total capital revenues may be if Silverdale instead incorporates in 2022. The delayed incorporation could increase the County's available revenues over the 2013-2025 period by about $15.4 million. In this scenario, the County would also continue to assume the responsibility for serving those areas, and the related costs.

Exhibit 32
Projected Total Kitsap County Capital Revenues for 2022 Silverdale Incorporation
(2013-2025 in YOE$)

Total Capital Revenues	Subtotal 2013-2018	Subtotal 2019-2025	Revenue Total 2013-2025	Total with 2012 Fund Balances
Estimated Revenues				
Preferred Alternative	93,041,979	133,203,480	**226,245,459**	**279,690,545**
Amount Committed to Debt Service	*24,389,424*	*27,190,314*	*51,579,738*	*51,579,738*
Available Revenues				
Preferred Alternative	68,652,555	106,013,166	**174,665,721**	**228,110,807**

Source: Kitsap County, 2012; Washington State Department of Transportation, 2012; and BERK, 2012.

All else being equal, the County is likely to have more revenue over the study period if Silverdale waits a decade to incorporate because there would be more assessed value in the unincorporated parts of the County, leading to more REET revenues and park impact fees; there would be more road miles, leading to higher MVF tax distributions; and there would be more population remaining in the unincorporated parts of the County, leading to higher grant revenues. As mentioned above, however, the County also retains the responsibility to serve those areas, which means higher capital costs.

The second half of the annexation assumptions in the above analysis is that the cities annex all of the commercial properties in each of their UGAs. If the cities annex less than the full amount of their commercial properties over

the study period, it would likely lead to marginally higher revenues due to increased levels of road miles and assessed value. As with the Silverdale incorporation, the less area annexed by the cities, the more area the County must continue to serve, which increases capital costs.

4.7 Potential Policy Options and Other Funding Sources

This section describes policy and funding options that are available to the County outside of the dedicated revenues listed above. The options listed are not necessarily being currently considered by the County, but are included to show a range of options that the County has available to them, if necessary.

Adjusting Policies for Non-allocated Revenue Streams

The County has some revenue streams that it is not required to use on capital that are currently either (1) being used partially for capital and partially for operations or (2) not being used for capital at all. If the County experiences a shortfall in the revenues it has allocated for capital sources, which are described in the sections above, it could consider changing its policies to create additional or larger capital revenue streams. However, any increase in the portion of these revenues dedicated to capital would need to be balanced against the County's existing operations and maintenance needs. Some revenue streams the County could consider allocating to capital include:

- **Solid Waste**. In previous years, the County has regularly transferred about $300,000 per year into the solid waste capital fund from solid waste fees. The County put this practice on hold beginning in 2010 because it had built up a solid waste fund balance to cover near-term solid waste projects. If the County chooses, it could restart its operating transfers to fund additional solid waste projects as needed.
- **SSWM Fees**. The County currently has a set practice of transferring $850,000 worth of SSWM fee revenues into the SSWM program capital fund and $230,000 worth of SSWM fee revenues into the SSWM asset replacement fund each year. If it chooses, the County could increase its fee revenue transfers in order to provide additional capital revenues.
- **County Road Levy**. The County does not currently dedicate any of county road property tax levy revenues toward capital projects. However, this revenue is sometimes used to fund construction on an as-needed basis through operating transfers to the county road construction fund. The County could institute a policy of allocating a certain percent of road levy revenues to capital projects in order to create a more stable capital transportation revenue source.

Local/Road Improvement Districts

If the County needs additional capital funds, it could consider creating a Local Improvement District (LID) or Road Improvement District (RID). Under these programs, the County has the statutory authority to create a new taxing district. Within these districts, the County may levy an additional property tax (excess levy) to cover debt service payments on the sale of bonds purchased to finance projects within the district. Revenues may only be applied to local, clearly-defined areas in which the land owners being assessed the additional tax benefit from the funded projects. LIDs may be used for water, sewer, and storm water projects. RIDs may only be used to fund road and street improvements.

Transportation Benefit District

Counties may form transportation benefit districts (TBDs) to acquire, construct, improve, provide, or fund transportation improvements within the defined district. TBDs have a number of revenue options to raise money to fund these improvements:

1. **Annual vehicle fee up to $20**. This fee does not require voter approval, although the County may place it on the ballot if they would like to receive an advisory vote or as an actual requirement of imposition. This fee can either be assessed countywide (on both incorporated and unincorporated areas) or in a district that only includes the unincorporated areas of the county. To assess the fee within incorporated areas, there are laws about the percent of cities and population that must approve the fee.

2. **Transportation impact fees on commercial and industrial buildings**. Residential buildings are excluded. In addition, a county or city must provide a credit for a commercial or industrial transportation impact if the respective county or city has already imposed a transportation impact fee.
3. **Additional Voter-Approved Revenue Options**. The County can, with voter approval, institute an annual vehicle license fee of up to $100 per vehicle or a sales tax up to 0.2 percent within the TBD. The TBD sales tax can be imposed in an area that is smaller than countywide and also sunsets after 10 years unless funds are used to retire debt on bonds used to fund improvements, in which case the tax can last longer than 10 years.

Tax Increment Financing Tools

Tax increment financing (TIF) allows cities, counties and port districts to create special districts (tax increment areas) to finance public infrastructure and help incentivize economic development and redevelopment of blighted neighborhoods. Once created, the existing tax base within the tax increment area is frozen. Property taxes continue to be paid, but taxes derived from increases in assessed values (the tax increment) resulting from new development either go into a special fund created to retire bonds issued to fund public infrastructure or to fund infrastructure on a pay-as-you-go basis.

In Washington State, the Community Revitalization Financing (CRF) program is the only current TIF program available to counties. The State also offers two additional TIF programs that include state matching funds, but are currently closed to new applicants as they are pending additional state funding.

4.8 Six-Year Cost and Revenue Comparison

The purpose of this section is to compare Kitsap County's dedicated capital facilities revenue sources with its planned project costs for the six-year planning horizon of 2013-2018 to understand the difference between future dedicated capital revenues and future costs. In Kitsap County, future capital costs generally are larger than future dedicated capital revenues. This trend is seen in most counties and cities throughout Washington State, given the structural and legal limitations on capital funding sources.

Understanding the magnitude of this difference can help the County plan for ways to fill in the gap through other funding methods, such as operating transfers or bonds.

Estimated Project Costs

The capital project costs shown in Exhibit 33 are taken from each county service provider's individual capital facilities plan for the six-year planning period (2013-2018) and estimated costs for the full study period (2013-2025). Costs were adjusted from 2012 dollars to Year of Expenditure dollars (YOE$) using an assumed inflation rate of 3.0% annually to align with the revenue projections presented above.

Exhibit 33
Estimated Capital Project Costs by Category
(2013-2025 in YOE$)

Project Costs	Subtotal 2013-2018	Total 2013-2025
Parks	14,547,601	16,374,283
Sewer	99,579,854	472,374,429
Solid Waste	3,434,259	3,727,833
Stormwater	19,751,095	19,751,095
Transportation	53,963,726	261,837,580
Total	**191,276,535**	**774,065,220**

Source: Kitsap County, 2012; and BERK, 2012.

Six-Year Capital Cost and Revenue Comparison

Exhibit 34 through Exhibit 39 show how planned project costs compare to dedicated capital revenue sources for the six-year planning period (2013-2018). The revenues and costs are both presented in year of expenditure dollars.

These exhibits identify the difference between planned costs and dedicate revenues, including existing fund balances in capital project funds. It is important to note that for all of the departments and service providers identified, their six-year capital plans have been balanced using non-dedicated revenue sources or bonds. These mechanisms are summarized after each individual exhibit.

Exhibit 34
Estimated Transportation Dedicated Capital Revenues and Costs
(2013-2018 in YOE$)

	2013-2018
Transportation	
Dedicated Transportation Fund Revenues	41,126,603
2012 Transportation Fund Balance	9,159,112
TOTAL TRANSPORTATION FUNDS AVAILABLE	**50,285,715**
Capital Transportation Costs	53,963,726
Estimated Dedicated Funding Surplus/(Deficit)	**(3,678,011)**

Source: Kitsap County, 2012; and BERK, 2012.

Although there is a difference between future dedicated transportation capital revenues and estimated capital costs for the six-year planning period, the six-year adopted Transportation Improvement Program (TIP) has been balanced through the use of multiple revenue sources, including local funds, impact fees, and state and federal funds.

Exhibit 35
Estimated Parks and Recreation Dedicated Capital Revenues and Costs
(2013-2018 in YOE$)

	2013-2018
Parks *(excluding amount committed to debt service)*	
Dedicated Parks Fund Revenues	10,500,230
2012 Parks Fund Balance	3,311,661
TOTAL PARKS FUNDS AVAILABLE	**13,811,891**
Capital Parks Costs	14,547,601
Estimated Dedicated Parks Funding Surplus/(Deficit)	**(735,710)**

Source: Kitsap County, 2012; and BERK, 2012.

Although there is a difference between future capital costs and dedicated capital revenues for the six-year period, the adopted Parks CIP creates a balanced plan through the use of other funding mechanisms, including partnerships and bonds.

Exhibit 36
Estimated Surface and Stormwater Management Dedicated Capital Revenues and Costs
(2013-2018 in YOE$)

	2013-2018
Surface and Stormwater Management	
Dedicated SSWM Fund Revenues	7,549,236
2012 SSWM Fund Balance	3,619,477
TOTAL SSWM FUNDS AVAILABLE	**11,168,713**
Capital SSWM Costs	19,751,095
Estimated Dedicated SSWM Funding Surplus/(Deficit)	**(8,582,382)**

Source: Kitsap County, 2012; and BERK, 2012.

The six-year SSWM CIP makes up for the difference between dedicated capital revenues and costs by using stormwater utility funds and targeted grant applications to augment its dedicated revenue sources.

Exhibit 37
Estimated Sewer Dedicated Capital Revenues and Costs
(2013-2018 in YOE$)

	2013-2018
Sewer	
Dedicated Sewer Fund Revenues	774,160
2012 Sewer Fund Balance	30,881,249
TOTAL SEWER FUNDS AVAILABLE	**31,655,409**
Capital Sewer Costs	99,579,854
Estimated Dedicated Sewer Funding Surplus/(Deficit)	**(67,924,444)**

Source: Kitsap County, 2012; and BERK, 2012.

Although the difference between future dedicated capital revenues and costs is large, the County has developed a funding plan that balances its six-year sewer CIP through the planned use of revenue bonds.

Exhibit 38
Estimated Solid Waste Dedicated Capital Revenues and Costs
(2013-2018 in YOE$)

	2013-2018
Solid Waste	
Dedicated Solid Waste Fund Revenues	0
2012 Solid Waste Fund Balance	3,102,265
TOTAL SOLID WASTE FUNDS AVAILABLE	**3,102,265**
Capital Solid Waste Costs	3,434,259
Estimated Dedicated Solid Waste Funding Surplus/(Deficit)	**(331,994)**

Source: Kitsap County, 2012; and BERK, 2012.

The County has balanced its six-year solid waste CIP by planning to use tipping fees and its Hansville and Olalla Post Closure Funds to fill in the difference between its future costs and dedicated revenue sources.

Exhibit 39
Estimated General Capital Dedicated Revenues and Costs
(2013-2018 in YOE$)

	2013-2018
General Capital Funds *(excluding amount committed to debt service)*	
General Capital Revenue	0
2012 General Capital Fund Balance	3,371,321
TOTAL GENERAL CAPITAL FUNDS AVAILABLE	**3,371,321**
General Capital Costs	0
Estimated Dedicated General Capital Funding Surplus/(Deficit)	**3,371,321**
TOTAL DEDICATED CAPITAL FUNDS	113,395,314
TOTAL CAPITAL NEED	191,276,535
TOTAL DEDICATED CAPITAL FUNDING SURPLUS/(DEFICIT)	**(77,881,220)**

Source: Kitsap County, 2012; and BERK, 2012.

As shown in Exhibit 39, the total difference between the County's estimated six-year capital costs and six-year dedicated capital revenues is about $78 million. This includes about $3.4 million in general capital funds that can be spent on any type of capital project.

This difference represents the structural difference between incoming dedicated capital revenues and planned capital expenditures over the six-year planning period, and does not reflect the County's likely future cash flow or ability to pay. The County has tools beyond its dedicated revenue streams with which to fund capital projects, such as reprioritization of operating revenues and its unused debt capacity.

The largest piece of the current difference is from sewer capital costs, which the County plans to bond for. According to the County's 2011 Budget Book, the County's unused long-term debt capacity is about $585 million, including $301 million of non-voted capacity and $284 million of voted capacity. This available bonding capacity far exceeds the six-year costs presented above. Therefore, it would be possible to issues bonds to cover the deficits shown if revenue is increased, expenses decreased, or programs reprioritized to make debt service payments.

4.9 Other Service Providers

For service providers other than Kitsap County we have presented general funding information for each type of service in the sections below. For review of the specific funding sources for each provider we have relied on the most current CFP available for that provider and have supplemented information through personal communication with provider representatives where possible.

5.0 CAPITAL FACILITIES

5.1 Public Buildings

Overview

Kitsap County's public buildings include government administrative offices, courtrooms, maintenance facilities, and community centers. These buildings serve the County as a whole, including incorporated and unincorporated populations. Appendix A includes a series of capital facilities inventory maps showing general locations for a variety of community facilities.

Inventory of Current Facilities

Exhibit 40 below lists the size and location of each public building facility. The 2012 inventory shows the County has about 313,735 square feet of administrative space, 35,928 square feet of maintenance facilities, and 65,920 square feet dedicated to community centers.

Exhibit 40
Current Facilities Inventory – County Public Buildings (2012)

Facility	Location	Size (Sq Ft)
Administrative Courthouse Campus	614 Division Street, Port Orchard	
Courthouse (includes 4 district and 7 superior)		105,000
Bullard Building		8,000
New Administration Building	619 Division Street, Port Orchard	80,350
Log Church	717 Sidney Street, Port Orchard	3,358
Other Administrative Facilities		
Child Support	730 Prospect, Port Orchard (Leased	6,400
Public Works Annex	8600 SW Imperial Way, Port Orchard	44,978
Kingston Precinct/Commissioners	26076 Illinois Avenue NE, Kingston	1,200
KITZ Building - BKAT	7266 Tibardis Rd, Bremerton	2,000
Coroner/Morgue	5010 Linden, Bremerton	8,459
Moderate Risk Waste	5551 SW Imperial Way, Port Orchard	3,750
Recovery Center	1975 Fuson Road, Bremerton	13,000
CenCom & DEM	5050 Linden, Bremerton	24,680
Parks and Recreation Administration Office	1201 NW Fairgrounds Road,	10,000
Fair Administration Office	1300 NW Fairgrounds Road,	2,560
Total Administration		**313,735**
Maintenance Facilities		
General Facilities Maintenance	717 Taylor Street, Port Orchard	7,900
Public Works Maintenance	Various Locations	28,028
Total Maintenance		**35,928**
Community Centers		
Givens Community Center	1026 Sidney Avenue, Port Orchard	46,850
Kingston Community Center	11212 State Hwy 104, Kingston	4,000
Silverdale Community Center	9729 Silverdale Way, Silverdale	15,070
Total Community Centers		**65,920**

Source: Kitsap County Department of Public Works, 2012; and BERK, 2012.

Level of Service Capacity Analysis

County Administration Buildings

The County's Level of Service (LOS) for County Administration buildings in 2012 is 1,092 square feet per 1,000 countywide population. The County is currently meeting its LOS standard with existing facilities. However, population growth through 2018 and 2025 will require a LOS adjustment as the County does not have planned facilities, and has already adjusted its land use plans to best meet countywide growth targets in a more compact manner.

The LOS adjustment is shown in Exhibit 41 and would lower the LOS for County Administration buildings from 1,092 s.f. per 1,000 population to 952 s.f. per 1,000 population. This will allow the County to meet its LOS standard through 2025.

Exhibit 41
Preferred Land Use Plan LOS Requirements Analysis – County Administration Buildings

Time Period	Kitsap Countywide Population	Square Feet Needed to Meet LOS standard	Current Square Feet Available	Net Reserve or (Deficit)
CURRENT LOS STANDARD = 1,092 SQUARE FEET PER 1,000 POPULATION				
2010	251,133	274,237	313,735	39,498
2018	290,263	316,968	313,735	(3,233)

Time Period	Kitsap Countywide Population	Square Feet Needed to Meet LOS standard	Current Square Feet Available	Net Reserve or (Deficit)
2025	329,473	359,784	313,735	(46,049)
ADJUSTED LOS STANDARD = 952 SQUARE FEET PER 1,000 POPULATION				
2010	251,133	239,079	313,735	74,656
2018	290,263	276,331	313,735	37,404
2025	329,473	313,658	313,735	77

Source: 2010 US Census, published 2012; Kitsap County Department of Public Works, 2012; and BERK 2012.

County Maintenance Facilities

The current LOS for County Maintenance facilities is 130 square feet per 1,000 countywide population. The County is currently meeting its LOS standard for existing county maintenance facilities. However, population growth will require a LOS adjustment as the County does not have planned facilities, and has already adjusted its land use plans to best meet countywide growth targets in a more compact manner. The adjusted LOS of 109 s.f. per 1,000 population shown in Exhibit 42 will allow the County to meet the standard through 2025.

Exhibit 42
Preferred Land Use Plan LOS Requirements Analysis - County Maintenance Facilities

Time Period	Kitsap Countywide Population	Square Feet Needed to Meet LOS standard	Current Square Feet Available	Net Reserve or (Deficit)
CURRENT LOS STANDARD = 130 SQUARE FEET PER 1,000 POPULATION				
2010	251,133	32,647	35,928	3,281
2018	290,263	37,734	35,928	(1,806)
2025	329,473	42,831	35,928	(6,903)
ADJUSTED LOS STANDARD = 109 SQUARE FEET PER 1,000 POPULATION				
2010	251,133	27,373	35,928	8,555
2018	290,263	31,639	35,928	4,289
2025	329,473	35,913	35,928	15

Source: 2010 US Census, published 2012; Kitsap County Department of Public Works, 2012; and BERK 2012.

County District Courtrooms

The LOS for County District Courtrooms is 0.022 courtrooms per 1,000 population. This LOS was adopted in the 2006 Plan, and at the time necessitated that the County add two additional District Courtrooms. Based on the current population, the County would have a need for 2 courtrooms given its 2012 LOS. Although the County is planning a new courthouse for the 2019-2025 timeframe, the details, including if it would add additional courtroom capacity, are yet to be determined. Based on this analysis, the courtroom LOS requires adjustment as the County does not have firmly planned facilities, and has already adjusted its land use plans to best meet countywide growth targets in a more compact manner. The adjusted LOS is shown in Exhibit 43.

Exhibit 43
Preferred Land Use Plan LOS Requirements Analysis - County District Courtrooms

Time Period	Kitsap Countywide Population	Capacity Needed to Meet LOS standard	Current Capacity Available	Net Reserve or (Deficit)
CURRENT LOS STANDARD = 0.022 COURTROOMS PER 1,000 POPULATION				

Time Period	Kitsap Countywide Population	Capacity Needed to Meet LOS standard	Current Capacity Available	Net Reserve or (Deficit)
2010	251,133	6	4	(2)
2018	290,263	6	4	(2)
2025	329,473	7	4	(3)
ADJUSTED LOS STANDARD = 0.012 COURTROOMS PER 1,000 POPULATION				
2010	251,133	3	4	1
2018	290,263	3	4	1
2025	329,473	4	4	0

Source: 2010 US Census, published 2012; Kitsap County Department of Public Works, 2012; and BERK 2012.

County Superior Courtrooms

The LOS for County Superior Courtrooms is 0.029 courtrooms per 1,000 countywide population. This level was adopted in the 2006 Plan. Currently the County is achieving this LOS. The County is not planning to add facilities, and has already adjusted its land use plans to best meet countywide growth targets in a more compact manner. Therefore, an adjusted LOS is shown in Exhibit 44.

Exhibit 44
Preferred Land Use Plan LOS Requirements Analysis - County Superior Courtrooms

Time Period	Kitsap Countywide Population	Capacity Needed to Meet LOS standard	Current Capacity Available	Net Reserve or (Deficit)
CURRENT LOS STANDARD = 0.029 COURTROOMS PER 1,000 POPULATION				
2010	251,133	7	7	0
2018	290,263	8	7	(1)
2025	329,473	10	7	(3)
ADJUSTED LOS STANDARD = 0.021 COURTROOMS PER 1,000 POPULATION				
2010	251,133	5	7	2
2018	290,263	6	7	1
2025	329,473	7	7	0

Source: 2010 US Census, published 2012; Kitsap County Department of Public Works, 2012; and BERK 2012.

County Community Centers

The LOS adopted in the 2006 Plan for county community centers is 239 square feet per 1,000 countywide population. The County is currently meeting this standard, but increasing population will require adjustment. The County is not planning for added facilities, and has already adjusted its land use plans to best meet countywide growth targets in a more compact manner. Thus, an adjusted LOS standard is shown in Exhibit 45.

Exhibit 45
Preferred Land Use Plan LOS Requirements Analysis - County Community Centers

Time Period	Kitsap Countywide Population	Square Feet Needed to Meet LOS standard	Current Square Feet Available	Net Reserve or (Deficit)
CURRENT LOS STANDARD = 239 SQUARE FEET PER 1,000 POPULATION				
2010	251,133	60,021	65,920	5,899

Time Period	Kitsap Countywide Population	Square Feet Needed to Meet LOS standard	Current Square Feet Available	Net Reserve or (Deficit)
2018	290,263	69,373	65,920	(3,453)
2025	329,473	78,744	65,920	(12,824)
ADJUSTED LOS STANDARD = 200 SQUARE FEET PER 1,000 POPULATION				
2010	251,133	50,227	65,920	15,693
2018	290,263	58,053	65,920	7,867
2025	329,473	65,895	65,920	25

Source: 2010 US Census, published 2012; Kitsap County Department of Public Works, 2012; and BERK 2012.

Capital Projects and Funding

Exhibit 46 shows the planned capital projects for public buildings from 2013 – 2025, including which revenues will be used to finance the projects. Currently the County is planning to build a new courthouse during the planning period, but the exact timeframe and cost are yet to be determined.

Exhibit 46
Public Buildings Capital Facilities Projects and Financing 2013-2025
(All Amounts in $1,000)

Project and Cost/Revenue (thousands $)	2013	2014	2015	2016	2017	2018	2019-2025	Total
Capacity Projects								
New Courthouse								
Cost							TBD	TBD
Revenue: Source TBD							TBD	TBD
Cost and Revenue Summary								
Capacity Projects	-	-	-	-	-	-	TBD	TBD
Non-Capacity Projects	-	-	-	-	-	-	-	-
Total Costs	**0**	**0**	**0**	**0**	**0**	**0**	**TBD**	**TBD**
Source TBD	-	-	-	-	-	-	-	-
Total Revenues	**0**	**0**	**0**	**0**	**0**	**0**	**TBD**	**TBD**

Source: Kitsap County Department of Public Works, 2012; and BERK, 2012.

5.2 Fire Protection

Overview

Kitsap County is served by Central Kitsap Fire and Rescue (CKFR), Fire District 18/Poulsbo Fire Department, North Kitsap Fire and Rescue (NKFR), and South Kitsap Fire and Rescue (SKFR). The Cities of Bremerton and Bainbridge Island have their own fire departments. The cities of Port Orchard and Poulsbo, as well as unincorporated areas within the County, receive fire protection from SKFR and Fire District 18/Poulsbo Fire Department, respectively. A map of fire districts is provided in Appendix A.

Fire district mergers have been occurring since 1978 to improve fire protection efficiency within the County. The latest merger took place on January 1, 2003, whereby Fire District 12 became a part of CKFR.

Excluding the Bainbridge Island Fire Department, which is not a focus of this analysis, there are a total of 39 fire stations in the County, 23 of which are staffed with career personnel.

Exhibit 47
Staffed and Non-Staffed Fire Stations in Kitsap County

Department	Staffed Stations	Non-Staffed Stations
North Kitsap Fire and Rescue (NKFR)	4	1
Fire District 18/Poulsbo	3	1
Bainbridge Island	1	3
Central Kitsap Fire and Rescue (CKFR)	5	7
Bremerton	3	0
South Kitsap Fire & Rescue (SKFR)	8	8
Total	**24**	**19**
Total Excluding Bainbridge Island	**23**	**16**

Source: Personal Communication Randy Billick, Central Kitsap Fire & Rescue, February 2012.

An additional six fire stations are located on military installations within the County under the jurisdiction of Navy Region Northwest Fire and Emergency Services.

Fire Protection and Rating

Each city and fire protection district is assigned a numerical fire protection rating (a Class 1 rating is the best) by the Washington Surveying and Ratings Bureau. Insurance companies fund the Bureau to perform on-site inspections of fire districts to determine the rating. The Bureau analyzes three main areas: water supply, the 911 communication network, and fire stations. Fire station evaluations focus on age and type of vehicles, amount of personnel training, and the number of career or volunteers that staff the fire station. Insurance companies use the fire protection rating to help determine insurance rates on all fire insurance policies. Quality of fire service can have a significant impact on fire insurance rates, with the greatest impact experienced by commercial occupancies.

County Fire Protection Districts

Fire protection districts in Kitsap County have entered into agreements with the Washington State Department of Natural Resources (DNR) to jointly fight fires on state-owned land and private forestland. DNR has no responsibility or authority in incorporated areas of the county. Each municipality is responsible for all fires within its boundaries. For the unincorporated lands, DNR and some fire districts have split up fire protection and suppression responsibility through creation of a fire protection zone (FPZ). DNR has protection responsibility for non-structural fires within an FPZ. The fire district protects all other unincorporated areas as well as structures within the FPZ. DNR policy is that they will not fight structure fires. Any structure within a fire district's boundaries is the responsibility of the district. DNR also protects certain state land parcels regardless of location. DNR is a signatory on the countywide mutual aid agreement and will respond as mutual aid when requested.

Inventory of Current Facilities

Exhibit 48 summarizes the capital facilities available for each fire district. It also includes each district’s fire rating, presence of EMS service, and service area population.

Exhibit 48
Kitsap County Fire Protection Facilities Inventory

Fire Protection Provider	Number of Stations	Fire Rating	Fire Units[1]	EMS Services	Service Area Population (2010)[2]
Central Kitsap Fire and Rescue (CKFR: Service areas include FPD No. 1)	12	4	35	Yes	68,406
South Kitsap Fire and Rescue (SKFR: Includes FPD No. 7 and City of Port Orchard)	16	5	36	Yes	72,329
North Kitsap Fire and Rescue (NKFR: Service area also includes FPD No.14)	5	5	13	Yes	18,622

Fire Protection Provider	Number of Stations	Fire Rating	Fire Units[1]	EMS Services	Service Area Population (2010)[2]
Fire District 18/Poulsbo Fire Department (Service area includes FPD No. 18 and City of Poulsbo)	4	4 – Within City Limits 5 – Outside City Limits	13	Yes	23,594

Source: Individual fire districts.

1. A unit is the combination of vehicle and equipment that responds to a fire or EMS situation, including engines, ladder trucks, water tenders, rescue units, aid cars and ambulances, and rehabilitation units, but not including staff or miscellaneous vehicles.

2. Service Area Population estimates are from the Office of Financial Management's annual Small Areas Population estimates for 2010. For this purposes of this analysis only 2010 year estimates are presented even though there are new OFM Small Area Population estimates for 2011. This analysis uses 2010 to keep this number comparable to other populations presented in this analysis, which are based on the 2010 US Census. Numbers presented in individual district's plans may reflect the 2011 estimates or individual district estimates and therefore differ slightly from this table.

Central Kitsap Fire and Rescue (CKFR: formerly Fire Districts 1, 12, and 15)

CKFR, located in the central portion of the County, is one of the largest fire service providers in Kitsap County. Within its boundaries and contracted areas, CKFR provides Fire and Emergency Medical Services (EMS) response to approximately 115 square miles of land and services an estimated 2010 population of approximately 68,406 citizens based on 2010 US Census data provided by the Washington State Office of Financial Management (OFM). In addition, CKFR is one of the county's fastest growing fire agencies as a result of a series of mergers, consolidations, and contracts for fire and EMS protection services. The most recent merger, whereby Fire District 12 merged into CKFR, occurred January 1, 2003, and resulted in an increase of from 103 square miles of coverage to the present 115 square miles. Because of its location, CKFR has a significant amount of waterfront—40 miles of tidal waterfront with adjacent saltwater area, and numerous small lakes and ponds See Appendix A for a map of district boundaries. The District's boundaries are described as follows:

> Beginning at the Mason County line and Hood Canal, North along the water through Holly, Seabeck, and Olympic View to Subase Bangor, then East along Mountain View road to Port Orchard Narrows at Naval Undersea Warfare Center (NUWC), then South through Brownsville, Illahee, Illahee State Park, to Enetai Beach and Bremerton City limits, then Northwest along Bremerton City limits along Petersville Road, then West along Riddell Road, then South along the eastern side past Roswell Drive, then West to Pine Road, and meandering South to Bremerton City limits near Lions Field, then Northwest along East side of Dyes Inlet through Tracyton up to Silverdale, then South along the west side to Jackson Park Naval, then South along Lakehurst drive to Kitsap Way and then West through the Gold Mountain area, then meandering West and South to the Mason County line, and then West to Hood Canal.

Communities recognized within CKFR are Silverdale, Olympic View, Seabeck, Lake Symington, Lake Tahuya, Island Lake, Ridgetop, Crosby, Hintzville, Holly, Brownsville, Gilberton, Meadowdale, North Perry, Illahee, Tracyton, Chico, Wildcat Lake, Kitsap Lake, and Erlands Point.

The larger water purveyors in CKFR are Silverdale Water District, North Perry Water District, Public Utility District #1, and Bremerton Water Department. There are many smaller water systems throughout the district that typically serve the daily domestic needs of residential subdivisions (many of which are not capable of providing adequate quantities of water for fire flow or are not designed with fire hydrants for fire-fighting needs).

Central Kitsap Fire and Rescue operates at 12 fire stations throughout the District. The fire stations are organized into three geographical area descriptions:

- Division 41: east of Ridgetop area including fire stations 41, 42, and 44, of which Station 41 is staffed with career personnel;
- Division 45: south of Brownsville including Illahee and fire station 45, which is staffed with career personnel;
- Division 51: central Silverdale core including fire stations 51and 52, of which Station 51 is staffed with career personnel;

- Division 56: west to Hood Canal and Mason County including fire stations 53, 54, 55, 56, and 65, of which Station 56 is a combination fire station staffed with career and volunteer personnel); and
- Division 64: Chico area including station 64 which is a combination fire station staffed with career and volunteer personnel.

Additional facilities within the fire district are its Administrative Facility and Vehicle Maintenance Facility (both facilities are co-owned and co-staffed with Silverdale Water District), and the Central Supply/Facilities Maintenance facility.

Central Kitsap Fire and Rescue equipment includes the following:

- 15 fire engines (1,000 to 1,500-gpm [gallons per minute] pump capacity and 750- to 1,000-gallon tank capacity), seven of which are four-wheel-drive.
- 1 brush engine.
- 1 ladder truck (105-foot).
- 5 water tenders (four 3,000-gallon tank capacity tenders and one 1,250-gallon tank capacity tender).
- 2 rescue units
- 10 medical units (3 advanced life support [ALS] and 7 basic life support [BLS]).
- 1 emergency scene rehabilitation unit.
- 2 rescue boats, one 17-foot and one 22-foot.
- 20 miscellaneous vehicles (e.g., staff, utility, delivery).

CKFR is referred to as a "combination" Fire District that uses both career and volunteer personnel. Fire Commissioners, 6 administrative personnel, 16 support personnel, 74 career line personnel, and approximately 80 volunteer personnel make up its membership. The Fire District currently has 18 of its line personnel trained to a Paramedic level with the remainder of the line personnel and some administrative personnel trained as Emergency Medical Technicians (EMTs).

CKFR provides EMS through three advanced life support (ALS) medical units and seven basic life support (BLS) medical units.

South Kitsap Fire and Rescue (SKFR: formerly Fire Protection District # No. 7)

SKFR is located in the southern portion of Kitsap County. SKFR covers 118 square miles of land area and serves an estimated 2010 population of approximately 72,329. There are 22 miles of tidal waterfront with adjacent saltwater area, plus numerous small lakes and ponds. SKFR also covers a considerable amount of Washington State Department of Natural Resources (DNR) land on a contractual basis. See Appendix A for a map of district boundaries.

SKFR serves the City of Port Orchard and the Port of Bremerton's Airport and Olympic View Industrial Park under a contractual agreement. Fourteen percent of the water for firefighting is provided by a number of water districts and systems. Fire district tenders provide water for firefighting in the remaining 86% of the district.

The major water purveyors in South Kitsap are the Annapolis Water District (now part of Westsound Utility District); the Manchester Water District; the City of Port Orchard; Bremerton Water; and privately owned water systems such as Harbor Water, Crown Properties Incorporated, Long Lake View Estates, McCormick Woods Water Company, Rainier View Water, Sunnyslope Water, and Watauga Beach Community Water.

SKFR responds to all types of fire, medical and related emergency situations from 16 stations throughout the district. Eight stations are staffed with career employees 24 hours/day while eight stations are not staffed with career employees 24 hours/day.

SKFR equipment includes the following:

- 16 fire engines
- 9 water tenders
- 10 EMS ambulances
- 1 ladder truck
- 2 Brush trucks
- 2 Command vehicles
- 1 Air support unit
- 1 MCI unit

SKFR staff comprises 85 career employees and 30 volunteers.

North Kitsap Fire and Rescue (NKFR: formerly Fire Protection Dist. 10)

NKFR, located in the northeast portion of the county, provides fire and emergency medical services (EMS) to an area of approximately 47 square miles and serves an estimated 2010 population of 18,622. The product of multiple mergers, NKFR serves the communities of Kingston, Hansville, Eglon, Indianola, Gamblewood, Jefferson Beach, Miller Bay, Suquamish and approximately 80% of the Suquamish Indian Reservation. By contract, the district also provides fire and EMS services to the Port Gamble S'Klallam Indian Reservation at Little Boston whose territory does not fall within the district's legal boundaries. The contract for services adds an estimated 682 persons and five square miles to its service responsibilities. See Appendix A for a map of district boundaries.

NKFR operates five stations, four of which are staffed:

- Station 81 (Paul T. Nichol Headquarters) at 26642 Miller Bay Road NE near Kingston
- Station 84 at 18533 August Ave in Suquamish
- Station 85 at 23260 South Kingston Rd between Kingston and Indianola
- Station 87 at 35100 Little Boston Rd NE (Unstaffed)
- Station 89 at 4911 Twin Spits Rd near Hansville

The major equipment located at the stations are:

- 4 fire engines (1 engine in reserve)
- 2 water tenders (one carrying 3,500 gallons and the other 3,000)
- 6 staff vehicles
- 4 aid or medic units (1 unit in reserve)
- 1 brush unit
- 1 mobile shop maintenance truck
- 3 maintenance vehicles (one of which can deliver fuel)
- 1 27-foot rescue boat (located at Kingston Marina)

NKFR has a total of 64 members, 44 of whom are career staff, and includes the following:

- 1 Chief*,
- 0.6 Assistant Chiefs*

- 3 Battalion Chiefs*
- 1 Captain*
- 6 Firefighter/Paramedics*
- 8 Lieutenants*
- 16 full-time Firefighters*
- 1 Community Service Specialist*
- 3 full-time Mechanics*
- 0.33 Facilities Maintenance Manager*
- 4 Office Staff*
- 12 Resident Volunteer Firefighters (on average)
- 5 Volunteers of Various Types (e.g. Tender Drivers and Child Car Seat Technicians)
- 3 Volunteer Chaplains

* Paid Positions

Poulsbo Fire Department (Fire Protection District 18 and City of Poulsbo)

The Poulsbo Fire Department is a joint operation of the City of Poulsbo and Kitsap County Fire Protection District No.18. The Department covers an estimated 54 square miles and encompasses an estimated 2010 population of approximately 23,594. District No. 18 extends north of Poulsbo to Port Gamble, west to Bangor Naval Base/Clear Creek Road, and south to Mountain View Road. The eastern boundary is approximately 3 miles east of Poulsbo. See Appendix A for a map of district boundaries. The Fire Department has four fire stations.

District No. 18 equipment is listed below:

- 4 engines (plus 1 reserve)
- 4 ambulances (plus 2 reserve)
- 1 rescue boat (17-foot)
- 4 staff and support vehicles
- 2 water tenders (3,000 gallons each)

District No. 18 staff includes 43 paid positions and approximately 25 volunteers.

Level of Service Capacity Analysis

Determination of a LOS using the fire units per capita method is calculated by dividing the number of fire units operated in a district by the district's population. Multiplying the established LOS by future population projections is a proven method for reasonably predicting growth-related fire and emergency service capital facilities requirements.

The Level of Service analysis is based on population growth estimates from a land capacity analysis for the period 2010-2025 as described in Section 3.0 Assumptions. Districts may have their own growth projections that are based on the needs of their own services. However, for a consistent planning effort, this analysis starts with the 2010 Census and projects future growth to 2018 and 2025 using a standard land capacity methodology. These growth figures have been shared with the districts through the CFP coordination process.

Fire Units, Fire Stations, and Personnel

Fire Units, Fire Stations, and Personnel. Kitsap County has adopted levels of service based on fire/emergency units per 1,000 population in its CFP. Fire/emergency units include fire engines, water tenders, and medic units. Fire

stations are included in CFP when considering capital facilities housing fire units and personnel; however, fire stations themselves are not included in the LOS calculation. Although personnel is an integral component to the operation of any fire district, personnel is not considered a capital facility item under the requirements of GMA.

Response Time

Response Time. Response time can be defined as the amount of time that elapses between the initial call for assistance and arrival of the first emergency unit on site. Planning for fire protection and medical services facilities using a response time method is often tied to a geographic distribution of stations and the equipment housed at each facility. Stations should be located within a five-mile radius of each other to provide blanket coverage throughout the county. With this method, a population increase does not have as direct an effect on fire protection facility needs as it would on other types of capital facilities, such as water systems and schools. Population increases will more directly affect the number of emergency service calls that a district receives, which in turn affects the number of personnel and amount of equipment needed to maintain an adequate response time.

The County's adopted LOS addresses fire units as described above, not response time. However, individual districts do monitor service levels in terms of response times because the state statute Chapter 52.33 (RCW) requires fire districts with substantially career staff (as opposed to volunteers) to adopt and annually report response time objectives. Each district's policy and most recent information on response time is addressed below.

Central Kitsap Fire & Rescue. CKFR has adopted many detailed response time goals. A turnout time goal (from time of call to wheels in motion) is 90 seconds, which the District should meet 90% of the time. The actual 2009 turnout time was 3:02 minutes, above the standard. There are numerous other travel time goals for suburban (fire/EMS 10:00), rural (fire/EMS 14:00), and wilderness areas (fire/EMS 24:00), which were met in 2009. While the district has adopted urban travel time standards it has no such actual areas present at this time. (CKFR 2010)

South Kitsap Fire and Rescue. SKFR has adopted a number of detailed response metrics. Regarding turnout time, the district has a goal of 90 seconds or less 90% of the time. In 2010, the district did not meet this standard with an actual performance of 2:30 minutes. The District has a number of travel time standards to urban, suburban, and rural areas for both fire units and EMS units. These travel times range for fire units from 5:00 minutes to 10:50 minutes depending on the urban, suburban, or rural nature of the call. In 2010, the Department met its suburban and rural travel times for fire units but not its urban travel times. The Department's travel times for EMS services ranged from 6:20 to 11:15 minutes also depending on the urban, suburban, or rural nature of the call and likewise met its suburban and rural goals and came very close to its urban goals (missing by two seconds) in 2010. (SKFR 2011)

North Kitsap Fire and Rescue. NKFR has adopted a response level of service as follows: the first unit, capable of beginning mitigation of the emergency, will arrive on scene within 7:59 minutes of dispatch on 90% of all priority alarms. The NKFR found that in 2010, the District's average monthly compliance rating was 74.38%. – a 0.05% improvement over 2009. (North Kitsap 2011)

Poulsbo Fire Department/Fire District 18. The Poulsbo Fire Department/Fire District 18 has developed numerous response metrics which are summarized below:

- Turnout Time (wheels on ground from time of call): The goal is 2:00 minutes for fire and priority 1 and 2 events and 1:30 minutes for medical events. In 2010, the actual turnout time for fire events was 2:48 and for Priority 1 and 2 events was 2:19 minutes. For medical events, the turnout time in 2010 was 2:15 minutes. While these did not meet the Department's goals, these response times are an improvement over 2009 results.
- The Department has a number of goals for response time of units to suburban calls for service generally at 8:00 minutes, and in 2010 met its goals.
- The Department also has rural response time goals, generally at 11:00 minutes, and for some types of calls met this goal in 2010 while not meeting others. (Fire District 18/Poulsbo Fire Department undated)

Future LOS Review. Because of the Fire Districts' requirement to measure response time, the County could work with the districts to develop an updated LOS measure for the CFP that accounts for factors that best represent

response time service objectives. In addition, the revised LOS could be established to link to a district's ability to collect impact fees. This could be developed in association with Kitsap County's regular GMA Comprehensive Plan review due next in 2016.

Central Kitsap Fire and Rescue (CKFR)

The current LOS is 0.41 fire units per 1,000 service district population, which was adopted in the 2006 CFP. CKFR is currently exceeding this standard, with a net reserve of seven fire units. CKFR plans to add three fire units by 2018 and an additional two fire units by 2025. These increases in service will allow CKFR to continue to meet its LOS for the planning period under the County's preferred land use plan. Since there is no projected deficiency, there are no proposed changes to the LOS standard.

Exhibit 49
Preferred Land Use Plan LOS Requirements Analysis – Central Kitsap Fire & Rescue

Time Period	District Service Area Population	Fire Units Needed to Meet LOS standard	Fire Units Available	Net Reserve or (Deficit)
CURRENT LOS STANDARD = 0.41 FIRE UNITS PER 1,000 POPULATION				
2010	68,406	28.0	35.0	7.0
Additional planned capacity through 2018			3.0	
2018	79,999	32.8	38.0	5.2
Additional planned capacity through 2025			2.0	
2025	91,744	37.6	40.0	2.4

Source: Washington State Office of Financial Management, 2012; and BERK, 2012.

South Kitsap Fire and Rescue (SKFR)

SKFR has a LOS standard of 0.41 fire units per 1,000 population in the service area. Due to service area population growth, SKFR would see a deficiency in fire units under the County's preferred land use plan by 2025. There are not currently any planned projects that would result in an increase in fire units to address this deficiency. This CFP adjusts the LOS standard, as shown in Exhibit 50, to reflect likely future service levels given estimated population growth and planned facilities.

Exhibit 50
Preferred Land Use Plan LOS Requirements Analysis – South Kitsap Fire & Rescue

Time Period	District Service Area Population	Fire Units Needed to Meet LOS standard	Fire Units Available	Net Reserve or (Deficit)
CURRENT LOS STANDARD = 0.41 FIRE UNITS PER 1,000 POPULATION				
2010	72,329	29.7	36.0	6.3
2018	85,608	35.1	36.0	0.9
2025	99,212	40.7	36.0	(4.7)
ADJUSTED LOS STANDARD = 0.36 FIRE UNITS PER 1,000 POPULATION				
2010	72,329	26.0	36.0	10.0
2018	85,608	30.8	36.0	5.2
2025	99,212	35.7	36.0	0.3

Source: Washington State Office of Financial Management, 2012; and BERK, 2012.

North Kitsap Fire & Rescue (NKFR)

NKFR has an LOS of 0.59 fire units per 1,000 service district population and is currently exceeding its standard by two fire units. Due to service area population growth, the current LOS would not be met by 2025. There are not currently any planned facilities that would address the projected growth. This CFP adjusts the LOS standard, as shown in Exhibit 51, to reflect likely future service levels given estimated population growth and planned facilities.

Exhibit 51
Preferred Land Use Plan LOS Requirements Analysis - North Kitsap Fire & Rescue

Time Period	District Service Area Population	Fire Units Needed to Meet LOS standard	Fire Units Available	Net Reserve or (Deficit)
CURRENT LOS STANDARD = 0.59 FIRE UNITS PER 1,000 POPULATION				
2010	18,622	11.1	13.0	2.0
2018	21,334	12.6	13.0	0.4
2025	24,030	14.2	13.0	(1.2)
ADJUSTED LOS STANDARD = 0.54 FIRE UNITS PER 1,000 POPULATION				
2010	18,622	10.1	13.0	2.9
2018	21,334	11.5	13.0	1.5
2025	24,030	13.0	13.0	0

Source: Washington State Office of Financial Management, 2012; and BERK, 2012.

Poulsbo Fire Department/Fire District 18

The Poulsbo Fire Department/Fire District 18 has a 2006 LOS of 0.54 units per 1,000 service district population. The Department is currently achieving this standard with its 13 fire units. However, population growth requires an LOS adjustment by 2025. None of Poulsbo's currently planned capital projects would increase capacity. This CFP adjusts the LOS standard, as shown in Exhibit 52, to reflect likely future service levels given estimated population growth and planned facilities.

Exhibit 52
Preferred Land Use Plan LOS Requirements Analysis – Poulsbo Fire Department/Fire District 18

Time Period	District Service Area Population	Fire Units Needed to Meet LOS standard	Fire Units Available	Net Reserve or (Deficit)
CURRENT LOS STANDARD = 0.54 FIRE UNITS PER 1,000 POPULATION				
2010	23,594	12.7	13.0	0.3
2018	26,515	14.3	13.0	(1.3)
2025	29,367	15.9	13.0	(2.9)
ADJUSTED LOS STANDARD = 0.44 FIRE UNITS PER 1,000 POPULATION				
2010	23,594	10.4	13.0	2.6
2018	26,515	11.7	13.0	1.3
2025	29,367	12.9	13.0	0.1

Source: Washington State Office of Financial Management, 2012; and BERK, 2012.

Capital Projects and Funding

Each district's projected capital facilities are shown separately below. The plans include planned projects, added capacity, and the revenue sources that will fund each project.

Central Kitsap Fire and Rescue

Planned fire protection facilities include six capacity projects at a total cost of $4.4 million. The proposed financing plan is shown in Exhibit 53.

Exhibit 53
Central Kitsap Fire and Rescue Capital Facilities Projects and Financing 2013-2025
(All Amounts in $1,000)

Project and Cost/Revenue	2013	2014	2015	2016	2017	2018	2019-2025	Total
CAPACITY PROJECTS								
1. New Fire Station 57								
Cost							2,500	2,500
Revenue : Levy, Bond, and Impact Fee Revenues							2,500	2,500
2. New Fire Engine								
Cost						500		500
Revenue : Levy, Bond, and Impact Fee Revenues						500		500
3. New Aid Car								
Cost						250		250
Revenue : Levy, Bond, and Impact Fee Revenues						250		250
4. New Tender								
Cost						350		350
Revenue : Levy, Bond, and Impact Fee Revenues						350		350
5. New Fire Engine								
Cost							500	500
Revenue : Levy, Bond, and Impact Fee Revenues							500	500
6. New Aid Car								
Cost							250	250
Revenue : Levy, Bond, and Impact Fee Revenues							250	250
COST AND REVENUE SUMMARY								
Capacity Projects	-	-	-	-	-	1,100	3,250	4,350
Non-Capacity Projects	-	-	-	-	-	-	-	-
Total Costs	**0**	**0**	**0**	**0**	**0**	**1,100**	**3,250**	**4,350**
Revenue : Levy, Bond, and Impact Fee Revenues	-	-	-	-	-	1,100	3,250	4,350
Total Revenues	**0**	**0**	**0**	**0**	**0**	**1,100**	**3,250**	**4,350**

Source: Central Kitsap Fire & Rescue, 2012; and BERK, 2012.

South Kitsap Fire & Rescue

Planned fire protection facilities include two non-LOS capacity projects at a total cost of $3.2 million. The proposed financing plan is shown in Exhibit 54.

Exhibit 54
South Kitsap Fire and Rescue Capital Facilities Projects and Financing 2013-2025
(All Amounts in $1,000)

Project and Cost/Revenue	2013	2014	2015	2016	2017	2018	2019-2025	Total
NON-CAPACITY PROJECTS								
1. Fire Station Remodeling – Station 16 Gorst Expansion								
Cost							150	150
Revenue: Fire District Tax Levy							150	150
2. Fire Station Construction – Sunnyslope Station Replacement								
Cost							3,000	3,000
Revenue: Fire District Tax Levy							3,000	3,000
COST AND REVENUE SUMMARY								
Capacity Projects	-	-	-	-	-	-	-	-
Non-Capacity Projects	-	-	-	-	-	-	3,150	3,150
Total Costs	**0**	**0**	**0**	**0**	**0**	**0**	**3,150**	**3,150**
Fire District Tax Levy	-	-	-	-	-	-	3,150	3,150
Total Revenues	**0**	**0**	**0**	**0**	**0**	**0**	**3,150**	**3,150**

Source: South Kitsap Fire and Rescue, 2012; and BERK, 2012.

North Kitsap Fire and Rescue

Fire protection facilities include three non-capacity capital projects at a total cost of $6.5 million. The proposed financing plan is shown in Exhibit 55.

Exhibit 55
North Kitsap Fire and Rescue Capital Facilities Projects and Financing 2013-2025
(All Amounts in $1,000)

Project and Cost/Revenue	2013	2014	2015	2016	2017	2018	2019-2025	Total
NON-CAPACITY PROJECTS								
1. Replace Fire Engines								
Cost			135	778				913
Fire District Regular Tax Levy			135	778				913
2. Replace Aid Units								
Cost					299.7	311.7		611.4
Fire District Regular Tax Levy					299.7	311.7		611.4
3. Replace Fire Station								
Cost							5,000	5,000

Project and Cost/Revenue	2013	2014	2015	2016	2017	2018	2019-2025	Total
GO Bond and/or Gov't-Tribal Partnerships							5,000	5,000
COST AND REVENUE SUMMARY								
Capacity Projects	-	-	-	-	-	-	-	-
Non-Capacity Projects	-	-	135	778	299.7	311.7	5,000	6,524
Total Costs	**0**	**0**	**135**	**778**	**299.7**	**311.7**	**5,000**	**6,524**
Fire District Regular Tax Levy	-	-	135	778	299.7	311.7	-	1,524
GO Bond and/or Gov't-Tribal Partnerships	-	-	-	-	-	-	5,000	5,000
Total Revenues	**0**	**0**	**135**	**778**	**299.7**	**311.7**	**5,000**	**6,524**

Source: North Kitsap Fire and Rescue, 2012; and BERK, 2012.

Poulsbo Fire Department/Fire District 18

Fire protection facilities include only non-capacity capital projects; all apparatus purchases will replace other units that have reached the end of their useful life and therefore will not increase the Department's total fire units. The proposed project and financing plan is shown in Exhibit 56.

The Department plans to finance its capital projects by making regular annual transfers from its general fund into its capital fund that, over the long run, will cover the costs of "lumpy" expenses such as vehicle or equipment replaces or large station repairs. Therefore, the plan as summarized below reflects costs and revenues based on the year in which they will occur, but does not reflect the Department's annual cash flow.

Exhibit 56
Poulsbo Fire Department Capital Facilities Projects and Financing 2013-2025
(All Amounts in $1,000)

Project and Cost/Revenue	2013	2014	2015	2016	2017	2018	2019-2025	Total
NON-CAPACITY PROJECTS								
1. Replace SCBAs (including SCBA Compressor)								
Cost							260	260
Rev: Fire District Tax Levy							260	260
2. Replace Bunker Gear								
Cost			61		32	16	113	222
Rev: Fire District Tax Levy			61		32	16	113	222
3. Medic Unit Replacement								
Cost		127	128			243	761	1,260
Rev: Fire District Tax Levy		127	128			243	761	1,260
4. Ongoing Fire Hose Replacement								
Cost							64	64
Rev: Fire District Tax Levy							64	64
5. MCT								
Cost			60				88	149
Rev: Fire District Tax Levy			60				88	149

Project and Cost/Revenue	2013	2014	2015	2016	2017	2018	2019-2025	Total
6. Replace Lifepack								
Cost	29	29					103	162
Rev: Fire District Tax Levy	29	29					103	162
7. Other Fire Equipment								
Cost	32	9	13	9			86	150
Rev: Fire District Tax Levy	32	9	13	9			86	150
8. Ongoing Miscellaneous Capital Improvements								
Cost	49	47	46	49	47	46	316	600
Rev: Fire District Tax Levy	49	47	46	49	47	46	316	600
9. Replace Staff Vehicles								
Cost	33	19	30	20	26	26	113	266
Rev: Fire District Tax Levy	33	19	30	20	26	26	113	266
10. Repair Station 71 Parking Lots & Drainage								
Cost							500	500
Rev: Source TBD							500	500
11. Replace Flat Roofs at Station 71 with Peaked Roofs								
Cost							300	300
Rev: Source TBD							300	300
12. Replace Station 73								
Cost							3,500	3,500
Rev: Source TBD							3,500	3,500
13. Add Exhaust Capture Systems, Upgrade Bay Doors								
Cost							450	450
Rev: Source TBD							450	450
14. Replace Engines at End of Useful Life								
Cost					1,200		2,825	4,025
Rev: Source TBD					1,200		2,825	4,025
COST AND REVENUE SUMMARY								
Capacity Projects	-	-	-	-	-	-	-	-
Non-Capacity Projects	143	232	339	78	1,305	331	9,480	11,907
Total Costs	**143**	**232**	**339**	**78**	**1,305**	**331**	**9,480**	**11,907**
Fire District Tax Levy	143	232	339	78	105	331	1,905	3,132
Source TBD	-	-	-	-	1,200	-	7,575	8,775
Total Revenues	**143**	**232**	**339**	**78**	**1,305**	**331**	**9,480**	**11,907**

Source: Poulsbo Fire Department, 2012; and BERK, 2012.
Note: The Department provided its capital plan in year of expenditure dollars; costs were converted to 2012 dollars using an assumed escalation rate of 3%.

5.3 Law Enforcement

Overview

The Kitsap County Sheriff Department serves the population of unincorporated Kitsap County. The major responsibilities of the Department are law enforcement, maintaining order, crime investigation and prevention, traffic control, marine enforcement, process and service of civil papers for the courts, service of criminal warrants, and other emergency services.

The Sheriff's main office facility located in Port Orchard houses the Sheriff, Undersheriff, records, detectives, patrol, patrol chief, administration, corrections, and the evidence/storage rooms. The Central Office located in Silverdale houses a patrol division, while the patrol chief maintains his administrative office at the courthouse. The Silverdale office space includes the patrol captain, reception area, civil and records extension, patrol shift supervisor offices, and the deputies' report/meeting room. The north office located in Kingston and the Kitsap Mall Office are satellite stations. The Readiness Center houses training classrooms and office space.

The County correctional facilities, which serve the population of incorporated cities and the unincorporated county, consist of a jail, a work release facility, and a juvenile facility. The correctional facilities, which are located on the courthouse campus in Port Orchard, are primarily two separate structures: the jail and the work release building. The jail is attached to the second floor of the courthouse and is accessible from the sheriff's main office.

The work release facility is a separate two-story building on the courthouse campus. The capacity of the facility is approximately 48 people. Unlike the facilities of the Sheriff's Office, the work release facility is used by all law enforcement agencies in the county. These facilities include corrections administration, warrant service, prisoner booking, prisoner housing, reception and visiting, food service, medical and psychiatric care, recreation, and library.

Inventory of Current Facilities

Law enforcement facilities include sheriff administration and operations offices (28,010 square feet), corrections facility (472 beds), work release facility (48 beds), and juvenile facility (35 beds). Exhibit 57 lists the facilities along with their current capacity and location. See Appendix A for a map of the major law enforcement facilities.

Exhibit 57
Current Facilities Inventory – Law Enforcement

Name	Location	Size/Quantity
Sheriff		
Main Office	614 Division Street, Port Orchard, WA	16,500 sq. ft.
Central Office	3951 Randall Way, Silverdale, WA	5,800 sq. ft.
North Office	26076 Illinois Street, Kingston, WA	1,200 sq. ft.
Readiness Center Office Space	North Kitsap	3,200 sq. ft.
Kitsap Mall Office	10315 Silverdale Way NW, Silverdale, WA	1,200 sq. ft.
Fire District 17 Office	Fire District 17	110 sq. ft.
Total Sheriff		**28,010 sq. ft.**
Corrections		
Jail	614 Division Street, Port Orchard	472 beds
Work Release Facility	Courthouse Campus, Port Orchard	48 beds
Juvenile Facility	1338 Old Clifton Road, Port Orchard	35 beds
Total Corrections		**555 beds**

Notes: sq. ft. = square feet

Source: Kitsap County Sheriff Department, 2012; and BERK, 2012.

The Sheriff's Department has an additional 5,400 square feet of building space for vehicle and evidence storage and training classrooms, which do not count toward its LOS requirement.

Level of Service Capacity Analysis

Sheriff Offices

The current LOS for sheriff offices is 266 square feet per 1,000 unincorporated countywide population. The County currently has a deficit of 16,724 square feet, which is expected to grow through 2025 as population increases. The County does not currently have any planned capital projects regarding Sheriff's Offices. Based on this analysis, the LOS requires adjustment as the County does not have planned facilities, and has already adjusted its land use plans to best meet countywide growth targets in a more compact manner. Thus this CFP adjusts the LOS as shown in Exhibit 58.

Exhibit 58
Preferred Land Use Plan LOS Requirements Analysis - Sheriff Offices

Time Period	Kitsap Unincorporated County Population	Square Feet Needed to Meet LOS standard	Square Feet Available	Net Reserve or (Deficit)
CURRENT LOS STANDARD = 266 SQUARE FEET PER 1,000 POPULATION				
2010	168,172	44,734	28,010	(16,724)
2018	192,307	51,154	28,010	(23,144)
2025	216,250	57,522	28,010	(29,512)
ADJUSTED LOS STANDARD = 129 SQUARE FEET PER 1,000 POPULATION				
2010	168,172	21,694	28,010	6,316
2018	192,307	24,808	28,010	3,202
2025	216,250	27,896	28,010	114

Source: US Census 2010 and BERK 2012.

County Jail

The current LOS for County Jail facilities is 1.7 beds per 1,000 countywide population. The County is currently meeting this standard with its 472 available County Jail beds. However, population growth will result in a likely deficit by 2025 under preferred land use plan.

Exhibit 59 shows the LOS analysis for the County Jail under the current adopted LOS and the adjusted LOS that would allow the County to meet the standard through 2025, given expected population growth and planned facilities. Other trends, such as if crime rates are reduced or if jail contracts with other municipalities change,[1]

[1] The Sherriff's office currently employs 114 Commissioned Deputies, 83 Corrections Officers and 31 support personnel that are supplemented by well over 150 volunteers. (Kitsap County Sheriff Department 2012) Over time, the Sherriff's office has seen crime rates go down, generally as staffing has increased. The Total Crime Index Rate has decreased from a rate of 31.24 per 1,000 population in 2002 to 24.70 per 1,000 population in 2010. (Kitsap County Sheriff Department 2010) The County could consider appropriate LOS as it continues to monitor the crime rate. Based on the Kitsap County Sheriff's Office 2010 Annual Report, the communities of Bremerton, Port Orchard, Poulsbo, Bainbridge Island, and Gig Harbor and the Suquamish and Skokomish Tribes contracted for jail services in 2010. However, Port Orchard has an agreement for jail services with the City of Forks currently in effect since late 2009. The County could consider the status of contracts with municipalities in determining appropriate LOS and likely demand for jail services.

could affect the LOS needed to serve the County, so the Sheriff's Department should monitor and adjust its LOS if necessary during future planning periods.

Exhibit 59
Preferred Land Use Plan LOS Requirements Analysis - County Jail

Time Period	Kitsap Countywide Population	Beds Needed to Meet LOS standard	Beds Available	Net Reserve or (Deficit)
CURRENT LOS STANDARD = 1.70 BEDS PER 1,000 POPULATION				
2010	251,133	427	472	45
2018	290,263	493	472	(21)
2025	329,473	560	472	(88)
ADJUSTED LOS STANDARD = 1.43 BEDS PER 1,000 POPULATION				
2010	251,133	359	472	113
2018	290,263	415	472	57
2025	329,473	471	472	1

Source: US Census 2010 and BERK 2012.

Work Release Facility

The current LOS for the work release facility is 0.17 beds per 1,000 countywide population. The County is currently meeting this standard, but is expected to see a deficit beginning in 2018 due to population growth. The County does not have any planned capital projects to address this deficit. Based on this analysis, the LOS requires adjustment as the County does not have planned facilities, and has already adjusted its land use plans to best meet countywide growth targets in a more compact manner. Exhibit 60 shows the adjusted LOS through 2025.

Exhibit 60
Preferred Land Use Plan LOS Requirements Analysis – Work Release Facility

Time Period	Kitsap Countywide Population	Beds Needed to Meet LOS standard	Beds Available	Net Reserve or (Deficit)
CURRENT LOS STANDARD = 0.17 BEDS PER 1,000 POPULATION				
2010	251,133	43	48	5
2018	290,263	49	48	(1)
2025	329,473	56	48	(8)
ADJUSTED LOS STANDARD = 1.43 BEDS PER 1,000 POPULATION				
2010	251,133	38	48	10
2018	290,263	44	48	4
2025	329,473	48	48	0

Source: 2010 US Census published 2012; and BERK 2012.

Juvenile Facility

The current LOS for the juvenile facility is 0.084 beds per 1,000 countywide population. The County is currently meeting this standard, and has adequate capacity to accommodate projected population growth under the County's selected land use plan. The LOS analysis for the juvenile facility is shown in Exhibit 61. Given that the County is estimated to meet its LOS through 2025, there is no need to change the current LOS standard.

Exhibit 61
Preferred Land Use Plan LOS Requirements Analysis - Juvenile Facility

Time Period	Kitsap Countywide Population	Beds Needed to Meet LOS standard	Beds Available	Net Reserve or (Deficit)
CURRENT LOS STANDARD = 0.17 BEDS PER 1,000 POPULATION				
2010	251,133	21	35	14
2018	290,263	24	35	11
2025	329,473	28	35	7

Source: 2010 US Census published 2012; and BERK 2012.

Capital Projects and Funding

The Sheriff's capital facilities plan does not currently include any projects.

5.4 Parks and Recreation

Overview

Parks and recreation facilities within Kitsap County are provided by a variety of public agencies and private organizations. County-owned facilities are only one component of the parks and recreation system. Many other agencies such as cities and schools also provide parkland and recreation facilities. See Appendix A for a general map of facilities.

Inventory of Current Facilities

Parklands, Shoreline, and Trails

As shown in Exhibit 62, the County owns and manages 6,674 acres of parkland. and other agencies within the County provide an additional 19,847 acres for a total of 26,521 acres available to County residents. Park space is generally used by all County residents, regardless of the local jurisdiction in which they reside. Out-of-county and out-of-state visitors and tourists also use a significant portion of these regional sites and facilities.

Exhibit 62
Current Facilities Inventory – County Owned Parks, Shoreline Access, and Trails

Type of Park	Kitsap County Capacity	Other Agencies Capacity	Total Capacity*
Open Space	1,941	16,699	18,640
Heritage Parks	3,799	0	3,799
Regional Parks	590	2,342	2,932
Community Parks	344	806	1,149
Total Acres	**6,674**	**19,847**	**26,521**
Shoreline Access	7 miles	18 miles	24 miles
Trails (Paved and Unpaved)	74 Miles	57 miles	131 miles

Note: Total capacity may differ from addition of Kitsap and other agency capacity due to rounding.
Source: Kitsap County Parks and Recreation Department, 2012; and BERK, 2012.

Active and Passive Recreation Facilities

The inventory of recreation facilities shows a wide variety of facilities owned and managed by the County, including baseball and softball fields, soccer fields, tennis courts, and other venues. Exhibit 63 and Exhibit 64 show the County owns a significant inventory.

Exhibit 63
Current Facilities Inventory – County Owned Active Recreation Facilities (Units)

Type of Active Recreation Facility	Kitsap County Capacity	Other Agencies Capacity	Total Capacity
Baseball Fields (250'+)	8	40	48
Baseball Fields (200'+)	19	32	51
Indoor Gymnasium	1	66	67
Basketball	7	79	86
Volleyball	6	63	69
Soccer	18	60	78
Tennis Courts	9	58	67
Horseshoe Pits	32	*unknown*	*unknown*
BMX Track	1	1	2
Golf Course Holes	36	144	180
Skate Park	2	*unknown*	*unknown*

Source: Kitsap County Parks and Recreation Department, 2012; and BERK, 2012.

Exhibit 64
Current Facilities Inventory – County Owned Passive Recreation Facilities (Units)

Type of Passive Recreation Facility	Kitsap County Capacity	Other Agencies Capacity	Total Capacity
Theater	2	*unknown*	*unknown*
Playgrounds	12	117	129
Garden features	1	*unknown*	*unknown*
Off-leash areas	3	*unknown*	*unknown*
Trails			
Trails (Paved)	1	0	1
Trails (Unpaved)	73	57	130
Total trails (mi)	74	57	131

Source: Kitsap County Parks and Recreation Department, 2012; and BERK, 2012.

Other Recreation Facilities

Exhibit 65 shows the inventory of additional recreational facilities owned and managed by the County, including beach and water activities and community centers.

Exhibit 65
Current Facilities Inventory – County Owned Facilities by Category (Units)

Category	Kitsap County Capacity	Other Agencies Capacity	Total Capacity
Community centers*	2	4	6
Nature/Interpretive Centers	1	1	2
Boat launches – motorized	2	*unknown*	*unknown*
Boat launches – non-motorized	4	*unknown*	*unknown*
Docks	3	*unknown*	*unknown*
Piers	5	*unknown*	*unknown*
Picnic tables	15	*unknown*	*unknown*

Category	Kitsap County Capacity	Other Agencies Capacity	Total Capacity
Benches	21	*unknown*	*unknown*
Barbeques	7	*unknown*	*unknown*
Shelters	5	34	39
Swimming Shoreline	1,512 linear feet	780 linear feet	2,292 linear feet
Saltwater shoreline	29,051 linear feet	*unknown*	*unknown*
Freshwater shoreline	5,361 linear feet	*unknown*	*unknown*
Showers	10	*unknown*	*unknown*
Restrooms	23	*unknown*	*unknown*
Garbage cans	25	*unknown*	*unknown*
Drinking fountains	14	*unknown*	*unknown*
Camp Sites	56	276	332
Parking spaces	805	*unknown*	*unknown*

Source: Kitsap County Parks and Recreation Department, 2012; and BERK, 2012.

Level of Service Capacity Analysis

The levels of service analyzed in this section are based on the *2012 Kitsap County Parks, Recreation, and Open Space (PROS) Plan* adopted in March 2012, which was an update to the original 2006 PROS Plan.

The PROS Plan LOS standards are based on all park facilities countywide, though the prior 2006 CFP standards only focused on county-provided facilities.

While this analysis reflects the 2012 PROS Plan in terms of desired level of service standards, there are some differences in estimated population demand between this CFP and the 2012 PROS Plan due to differences in assumed population growth. The PROS Plan assumes a lower population in 2018 than the land capacity methodology used in this CFP. In order to have consistency among the services analyzed in this CFP, the analysis that follows is based on the land capacity methodology. This may show that the County has larger parks facility deficiencies than are listed in the 2012 PROS Plan; monitoring would be appropriate to ensure that population growth and planned facilities align. Further, the County annually reviews its capital improvements program with its budget.

The 2012 PROS Plan outlines the priorities and partnerships in developing a countywide system and represents qualitative needs as expressed by Kitsap County citizens and decision makers. The CFP addresses proposed acquisition and development for County-only facilities and represents proposals that are consistent with the 2012 PROS vision together with fiscal constraints. Because of the difference in purpose and use, the CFP shows the 2012 PROS Plan LOS as targets and the LOS based on fiscally constrained proposals as the minimum or base LOS. Should the County secure additional grants for example, projects may be added to the list that would allow the County to move closer to its target LOS.

Open Space

The target LOS for open space is 71.0 acres per 1,000 countywide population. Exhibit 66 shows the County is currently meeting the target open space LOS adopted in the 2012 PROS Plan, and has a surplus of about 810 acres. Although the County has plans to add approximately 193 acres of open space acreage by 2025, population growth will result in a deficit both in 2018 and in 2025 based on the target LOS assuming that other agencies do not add open space land. Thus a base LOS is proposed.

Exhibit 66 shows the County's "target" LOS standard and proposed base LOS that reflects fiscally constrained likely future level of service through 2025.

Exhibit 66
Preferred Land Use Plan LOS Requirements Analysis – Open Space

Time Period	Kitsap Countywide Population	Acres to Meet LOS Standard	Acres Available	Net Reserve or (Deficit)
"TARGET" LOS STANDARD = 71.0 ACRES PER 1,000 POPULATION				
2010	251,133	17,830	18,640	810
Additional Planned Capacity through 2018			193	
2018	290,263	20,609	18,833	(1,776)
Additional Planned Capacity through 2025			0	
2025	329,473	23,393	18,833	(4,560)
"BASE" LOS STANDARD = 57.1 ACRES PER 1,000 POPULATION				
2010	251,133	14,340	18,640	4,300
Additional Planned Capacity through 2018			193	
2018	290,263	16,574	18,833	2,259
Additional Planned Capacity through 2025			0	
2025	329,473	18,813	18,833	20

Source: Kitsap County Parks and Recreation Department, 2012; US Census 2010 and BERK 2012.

The base LOS would reflect funding constraints. The County could strive to achieve its target LOS if it has additional secured funding, allowing further acquisition that would allow the County to reach its 2012 PROS Target LOS.

One of the County's highest priorities in the 2012 PROS Plan is a partnership to acquire 7,000 acres known as the Kitsap Forest and Bay Project, which would effectively double the County's current park ownership and allow the County to meet its target open space LOS standard through 2025. This potential acquisition is not included in the analysis above because the details have not been finalized, and therefore it is not included in the Parks CFP.

Regional Parks

The target LOS for Regional Parks is 16 acres per 1,000 countywide population. Exhibit 67 shows that the County currently has a deficit of about 1,086 acres of regional parks. The County does not currently have any planned regional parks facilities. Due to population growth, the County will experience a larger deficit by 2025 using the target LOS standard.

It is possible that some of the estimated deficits noted in Exhibit 67 will be covered by increases in non-county-owned facilities. However, to be conservative this CFP provides a base LOS standard that reflects fiscal constraints and likely future service levels. The County could strive to achieve its target LOS if it has additional secured funding, allowing further acquisition that would allow the County to reach its 2012 PROS Target LOS.

Exhibit 67
Preferred Land Use Plan LOS Requirements Analysis - Regional Parks

Time Period	Kitsap Countywide Population	Acres to Meet LOS Standard	Acres Available	Net Reserve or (Deficit)
"TARGET" LOS STANDARD = 16.0 ACRES PER 1,000 POPULATION				
2010	251,133	4,018	2,932	(1,086)
2018	290,263	4,644	2,932	(1,712)
2025	329,473	5,272	2,932	(2,340)
"BASE" LOS STANDARD = 8.9 ACRES PER 1,000 POPULATION				
2010	251,133	2,235	2,932	697
2018	290,263	2,583	2,932	349
2025	329,473	2,932	2,932	0

Source: Kitsap County Parks and Recreation Department, 2012; US Census 2010 and BERK 2012.

Heritage Parks

The target LOS for Heritage Parks is 19.0 acres per 1,000 countywide population. Exhibit 68 shows that the County currently has a deficit of about 973 acres of heritage parks. The County does not currently have any planned heritage parks. Due to population growth, the County will experience a larger deficit by 2025 using the target LOS standard.

It is possible that some of the estimated deficiencies noted in Exhibit 68 will be covered by increases in non-county-owned facilities. However, to be conservative this CFP provides a base LOS standard that reflect fiscal constraints and likely future service levels. The County could strive to achieve its target LOS if it has additional secured funding, allowing further acquisition that would allow the County to reach its 2012 PROS Target LOS.

Exhibit 68
Preferred Land Use Plan LOS Requirements Analysis - Heritage Parks

Time Period	Kitsap Countywide Population	Acres to Meet LOS Standard	Acres Available	Net Reserve or (Deficit)
"TARGET" LOS STANDARD = 19.0 ACRES PER 1,000 POPULATION				
2010	251,133	4,772	3,799	(973)
2018	290,263	5,515	3,799	(1,716)
2025	329,473	6,260	3,799	(2,461)
"BASE" LOS STANDARD = 11.5 ACRES PER 1,000 POPULATION				
2010	251,133	2,888	3,799	911
2018	290,263	3,338	3,799	461
2025	329,473	3,789	3,799	10

Source: Kitsap County Parks and Recreation Department, 2012; US Census 2010 and BERK 2012.

Community Parks

The target LOS for Community Parks is 4.65 acres per 1,000 countywide population. Exhibit 69 shows that the County currently has a small deficit of about 19 acres, increasing through 2025 as population grows. The County does not currently have any planned facilities.

It is possible that some of the estimated deficits noted in Exhibit 69 will be covered by increases in non-county-owned facilities. However, to be conservative this CFP includes a base LOS standard that reflects fiscal constraints and likely future service levels. The County could strive to achieve its target LOS if it has additional secured funding, allowing further acquisition that would allow the County to reach its 2012 PROS Target LOS.

Exhibit 69
Preferred Land Use Plan LOS Requirements Analysis - Community Parks

Time Period	Kitsap Countywide Population	Acres to Meet LOS Standard	Acres Available	Net Reserve or (Deficit)
"TARGET" LOS STANDARD = 4.65 ACRES PER 1,000 POPULATION				
2010	251,133	1,168	1,149	(19)
2018	290,263	1,350	1,149	(201)
2025	329,473	1,532	1,149	(383)
"BASE" LOS STANDARD = 3.50 ACRES PER 1,000 POPULATION				
2010	251,133	876	1,149	273
2018	290,263	1,012	1,149	137
2025	329,473	1,149	1,149	0

Source: Kitsap County Parks and Recreation Department, 2012; US Census 2010 and BERK 2012.

Shoreline Access

The LOS for shorelines access is 0.061 miles per 1,000 population. Exhibit 70 shows that the County is currently meeting this standard and has a net reserve of about 9 miles of shoreline access. Even with projected population growth through 2025, the County is expected to meet its target LOS through the combination of county-owned and other agency-provided shoreline access. Given the County does not have any projected deficits, there is no proposed change to its LOS standard.

Exhibit 70
Preferred Land Use Plan LOS Requirements Analysis – Shoreline Access

Time Period	Kitsap Countywide Population	Miles to Meet LOS Standard	Miles Available	Net Reserve or (Deficit)
"TARGET" LOS STANDARD = 0.061 MILES PER 1,000 POPULATION				
2010	251,133	15	24	9
2018	290,263	18	24	6
2025	329,473	20	24	4

Source: Kitsap County Parks and Recreation Department, 2012; US Census 2010 and BERK 2012.

Trails

Exhibit 71 shows the LOS analysis for the Parks Department's trails inventory. Currently there is a net reserve of about 24 miles above the target standard of 0.20 miles per 1,000 population. Additionally, the County plans to add about 80 miles of trails in the six-year planning period, which will allow the County to continue to exceed its LOS standard through the planning period under the County's preferred land use plan. Therefore, there is no proposed change to the target LOS standard.

Exhibit 71
Preferred Land Use Plan LOS Requirements Analysis – Trails

Time Period	Kitsap Countywide Population	Miles to Meet LOS Standard	Miles Available	Net Reserve or (Deficit)
"TARGET" LOS = 0.2 MILES PER 1,000 POPULATION				
2010	251,133	50	74	24
Additional Planned Capacity through 2018			80	
2018	290,263	58	154	95
Additional Planned Capacity through 2025			0	
2025	329,473	66	154	88

Source: 2010 US Census published 2012;and BERK 2012.

Capital Projects and Funding

The County's current capital facilities plan includes 23 capital projects at a total cost of $14.4 million. The proposed financing plan is shown in Exhibit 72.

Exhibit 72
Parks and Recreation–Capital Facilities Projects and Financing 2013-2025 (All Amount in $1,000's)

Project and Cost/Revenue (thousands $)	2013	2014	2015	2016	2017	2018	2019-2025	Total
CAPACITY PROJECTS								
1. Unidentified Multi-use Trails (70 miles)								
Cost		175		125				300

Project and Cost/Revenue (thousands $)	2013	2014	2015	2016	2017	2018	2019-2025	Total
Rev: Proposed Grant(s)		125		75				200
Rev: Partnership(s)*		50		50				100
2. NK Heritage Park Trails (5 miles)								
Cost		10						10
Rev: Partnership(s)*		10						10
3. Carpenter Lake/Creek Trail (1.5 miles)								
Cost		298						298
Rev: Proposed Grant(s)		240						240
Rev: Partnership(s)*		58						58
4. Illahee/Lost Continent – Phase II (170 acres)								
Cost		800			700			1,500
Rev: Proposed Grant(s)		500			500			1,000
Rev: Partnership(s)*		300			200			500
5. Carpenter Riparian Corridor (23 acres)								
Cost					500			500
Rev: Proposed Grant(s)					300			300
Rev: Partnership(s)*					200			200
6. Wicks Lake Trails (3 miles)								
Cost					10			10
Rev: Partnership(s)*					10			10
7. Unidentified Shoreline Acquisition								
Cost					300			300
Rev: Proposed Grant(s)					300			300
NON-CAPACITY PROJECTS								
8. Rolling Hills Golf Course								
Cost	200	200	200	200	200	200	1,400	2,600
Rev: Purchase Agreement	200	200	200	200	200	200	1,400	2,600
9. NK Heritage Park – Acquisition & Development								
Cost			700	1,500				2,200
Rev: Proposed Grants			500	1,000				1,500
Rev: Partnerships			200	500				700
10. Parks and Open Space Plan								
Cost			100					100
Rev: Ending Capital Fund Balance			100					100
11. South Kitsap Regional Park								
Cost			700					700
Rev: Other Grants			500					500

Project and Cost/Revenue (thousands $)	2013	2014	2015	2016	2017	2018	2019-2025	Total
Rev: Partnership(s)*			200					200
12. Sinclair Inlet – access/signage								
Cost		150						150
Rev: Partnership(s)*		150						150
13. Village Green Golf Course								
Cost		500						500
Rev: Partnership(s)*		400						400
Rev: Projected Golf Course Revenue		100						100
14. Banner Forest Parking Lot								
Cost		50						50
Rev: Partnership(s)*		50						50
15. Hansville Greenway								
Cost			20		20			40
Rev: Partnership(s)*			20		20			40
16. Norwegian Point Park								
Cost			500					500
Rev: Proposed Grant(s)			500					500
17. Sinclair Inlet								
Cost				500				500
Rev: Proposed Grant(s)				500				500
18. Playground Equipment								
Cost				200				200
Rev: Impact Fees				200				200
19. Anderson Landing Parking Lot								
Cost				150				150
Rev: Grant				75				75
Rev: Partnership(s)*				75				75
20. Gordon Field Artificial Turf								
Cost				900				900
Rev: Grant				200				200
Rev: Partnership(s)*				700				700
21. Olalla Boat Launch Improvements								
Cost					300			300
Rev: Proposed Grant(s)					150			150
Rev: Ending Capital Fund Balance					150			150
22. Heritage Farm/Clear Creek								
Cost					1,574			1,574

Project and Cost/Revenue (thousands $)	2013	2014	2015	2016	2017	2018	2019-2025	Total
Rev: Proposed Grant(s)					750			750
Rev: Partnership(s)					824			824
23. Coulter Creek Heritage Park Phase I								
Cost					1,000			1,000
Rev: Future Bond					1,000			1,000
COST AND REVENUE SUMMARY								
Capacity Projects	-	1,283	-	125	1,510	-	-	2,918
Non-Capacity Projects	200	900	2,220	3,450	3,094	200	1,400	11,464
Total Costs	**200**	**2,183**	**2,220**	**3,575**	**4,604**	**200**	**1,400**	**14,382**
Purchase Agreement	200	200	200	200	200	200	1,400	2,600
Proposed Grant(s)	-	1,265	1,000	1,575	2,000	-	-	5,840
Partnership(s)*	-	618	420	1,325	1,254	-	-	3,617
Ending Capital Fund Balance	-	-	100	-	150	-	-	250
Other Grants	-	-	500	-	-	-	-	500
Projected Golf Course Revenue	-	100	-	-	-	-		100
Impact Fees	-	-	-	200	-	-	-	200
Grant	-	-	-	275	-	-	-	275
Future Bond	-	-	-	-	1,000	-	-	1,000
Total Revenues	**200**	**2,183**	**2,220**	**3,575**	**4,604**	**200**	**1,400**	**14,382**

Source: Kitsap County Parks and Recreation Department's *2012 Kitsap County Parks, Recreation, and Open Space PLAN,* 2012; and BERK, 2012.

Note: Although some of the projects listed as "non-capacity" projects in this table are labeled as acquisition, the acreage is already under County ownership; they are included in the current inventory and therefore they would not contribute to additional capacity for future LOS analysis. Remaining dollars are for development of the acquired properties.

5.5 Sanitary Sewer

Overview

There are a total of 13 wastewater collection systems and 10 wastewater treatment facilities in Kitsap County, which serve approximately 40% of the total County population. The majority of the rural population uses on-site septic systems.

Several agencies within the County provide sanitary sewer services:

1. Kitsap County manages five wastewater collection systems: Central Kitsap UGA, Kingston UGA, Manchester LAMIRD, Navy Yard City, and Suquamish LAMIRD, and four treatment plants servicing Central Kitsap, Manchester, Suquamish, and Kingston;
2. The City of Bremerton maintains and operates collection and treatment systems for the East Bremerton UGA, portions of the West Bremerton UGAs, and the Gorst UGA;
3. The City of Poulsbo maintains a collection system and contracts with the County to treat city wastewater at the Central Kitsap Treatment Plant in Brownsville;

4. The City of Port Orchard and West Sound Utility District independently operate their respective collection systems and jointly manage the treatment facility at Annapolis. West Sound Utility District is responsible for daily operation of the treatment plant;
5. The Port Gamble/S'Klallam Tribe owns and operates a small collection system and treatment facility that serves the community east of Port Gamble Bay.
6. Pope Resources owns and operates a collection system and secondary treatment plant serving the Port Gamble townsite and millsite;
7. The Port of Bremerton owns and operates a collection and treatment system that serves the commercial development on Port property; and
8. The U.S. Navy manages wastewater collection systems on federal reservations and contracts with Kitsap County and the City of Bremerton to treat its effluent. It is a major contributor to several wastewater treatment plants in Kitsap County, with the Central Kitsap plant receiving the most.

Inventory of Current Facilities

An inventory of the existing municipal, county and private wastewater facilities located in Kitsap County is presented in this section. This inventory is summarized in Exhibit 73. For the incorporated cities of Bremerton and Port Orchard, the service area and inventory generally applies to the area within incorporated city boundaries. For unincorporated Kitsap County (including the West Sound Utility District service area) the inventory area applies to service areas within the unincorporated UGAs. Columns (4) – (6) show the LOS as flow design capacity in millions of gallons per day (mgd), 2012 existing flow capacity, and corresponding 2012 flow capacity surpluses or deficits for each of the 10 major wastewater management systems in the County. Column (7) shows the existing populations served within each wastewater system. Maps are provided in Appendix B that show location and type of existing and future sanitary sewer facilities. Appendix C includes a technical appendix with wastewater definitions, an analysis of funding sources, and a technical memo regarding County facilities to be used for the 20-year planning period.

Exhibit 73
Kitsap County Public Sewer System Inventory

Name	Collection System		Treatment Plant			Service Area		
	Miles of Pipe (1)	Collection System Existing Conditions	Existing Flow, mgd (1)	Design Flow, mgd (1)	Surplus/ Deficit, (mgd)	2012 Population Served	Existing Connections ERU (5)	Surplus/ Deficit ERU (3)
CITY SEWER SYSTEMS								
City of Bremerton	141 gravity & 31 force main	Completed improvements to reduce overflows to one event per year, per outfall on 5-year avg. during design storm, in all drainage basins. Minor overflows to be reduced to one event/yr in 5 years.	4.5	7.6	3.1	36,120	16,000	17,717

Name	Collection System		Treatment Plant			Service Area		
	Miles of Pipe (1)	Collection System Existing Conditions	Existing Flow, mgd (1)	Design Flow, mgd (1)	Surplus/ Deficit, (mgd)	2012 Population Served	Existing Connections ERU (5)	Surplus/ Deficit ERU (3)
City of Port Orchard	98	Mains on Bay Street, Pottery Avenue, Tremont Street and Old Clifton Road are expected to require additional capacity to accommodate 2025 flow projections.	1.0	4.2	3.2	8,569	5,400	(4)
NOTE: Treatment plant is jointly owned by the City and Sewer District No. 5. Sewer District No. 5 is responsible for daily operation of the plant.								
City of Poulsbo	31	The City currently pumps sewage for Central Kitsap Wastewater Plant.	0.64	0.95	0.66	9,185	2,540	3,750
NOTE: Rain water/inflow needs to be separated to extend the capacity of the current discharge amount agreed upon with Kitsap County limits Poulsbo to 1.3 mgd ADF City of Poulsbo currently removes infiltration and inflow.								
KITSAP COUNTY SYSTEMS								
Central Kitsap Wastewater Facilities	145	See Appendix C	4.58	6.0	1.42	44,476	17,790	5,680
NOTE: The Central Kitsap treatment plant serves the Silverdale and Central UGAs, as well as is contracted to receive sewage from US Navy at Bangor and Keyport and also from City of Poulsbo.								
Kingston Sewer Facilities	14.1	Wastewater collection system has sufficient capacity for projected future flows.	0.164	0.292	0.128	1,900	760	1,280
NOTE: The Kingston treatment plant serves the Kingston UGA and was expanded to 0.292 mgd.								
Suquamish Sewer System	10	No critical pipe flow problems identified. Some segments under capacity that can cause odor/ maint. problems.	0.35	0.40	0.05	2,248	899	500
NOTE: The Suquamish treatment plant serves the Suquamish LAMIRD and is contracted to receive sewage from the Suquamish Tribal and was expanded to 0.40 mgd.								
Manchester Sewer Facilities	12.3	Facility Plan does not address existing conditions of the collection system.	0.32	0.46	0.14	2,193	877	1,400
NOTE: The Manchester treatment plant serves the Manchester LAMIRD and was expanded to 0.46 mgd								
Navy Yard City (Sewer	9.2	Significant amount of I/I identified in the		0.40 (see		2,947	1,291	-2,400

Name	Collection System		Treatment Plant			Service Area		
	Miles of Pipe (1)	Collection System Existing Conditions	Existing Flow, mgd (1)	Design Flow, mgd (1)	Surplus/ Deficit, (mgd)	2012 Population Served	Existing Connections ERU (5)	Surplus/ Deficit ERU (3)
Dist. #1)		older sewers in this service area.		notes)				
NOTE: The Navy Yard City sewer system serves a portion of the West Bremerton UGA. The conveyance systems is owned and managed by Kitsap County and current discharge contract with the City of Bremerton limits flows to 0.40 mgd ADF.								
West Sound Utility District	45	Upgraded to replace mains with insufficient capacity. Can meet current community needs.	1.2	4.2	3.0	23,500	10,260	10,440
NOTE: Treatment plant is jointly owned by Port Orchard and the District. The District is responsible for operation of the plant. The plant capacity has been increased.								
Port of Bremerton Industrial Area	1.6		10,000-15,000 gpd	72,500 gpd	57,000-62,500 gpd	400	160	1000

Sources: Kitsap County; Cities of Bremerton, Port Orchard, and Poulsbo; West Sound Utility District; BHC Consultants; Parametrix 2012

Notes:

mgd = million gallons per day

1. Based on the average day flow during the peak flow month (ADF: basis of National Pollutant Discharge Elimination System [NPDES] permits)
2. Calculations based on City of Port Orchard/West Sound Utility District combined totals.
3. Residential connections assume 100 gallons per capita per day and an average of 2.5 persons per residence (250 gpd/eru).
4. See West Sound Utility District.
5. "ERU" means equivalent residential unit.

City of Bremerton Sewer Facilities

The City of Bremerton maintains and operates a wastewater collection and treatment system that provides service to the West Bremerton, East Bremerton, and Gorst UGAs (see maps in Appendix B).

The system also accepts wastewater flows from the Puget Sound Naval Shipyard (PSNS), other U.S. Navy facilities, and Kitsap County Sewer District No. 1 (KCSD No. 1) in West Bremerton. Other than the U.S. Navy, the system does not provide sewer service for any significant industrial dischargers. The components of the City's sewer system are listed below:

- Combined sanitary and stormwater sewers,
- Gravity sewers,
- Gravity-pressure sewers,
- Sanitary sewer pump stations and force mains,
- Combined sewer overflow (CSO) structures,
- Wet weather treatment facility,
- Conventional wastewater treatment facilities, and
- Odor control stations.

Since a portion of the City of Bremerton sanitary sewer collection system is composed of combined sewers, flows are derived from the following types of sources:

- Conventional wastewater and sanitary sewage,

- Stormwater inflow, and
- Groundwater infiltration, including rainfall-induced infiltration.

The City of Bremerton currently operates two wastewater treatment facilities. The Westside Wastewater Treatment Plant (WWTP) in West Bremerton provides secondary wastewater treatment for the entire service area and discharges to Sinclair Inlet. Biosolids produced at the Westside Plant are treated through anaerobic digestion, dewatered by centrifuge, transported and applied to permitted forestland owned by the City. The Eastside Treatment Facility provides treatment for combined wet weather and sewer flows from East Bremerton and discharges to Port Washington Narrows.

A network of gravity sanitary sewer pipelines, pump stations, and force mains delivers flows from the collection system to these treatment facilities. The various East Bremerton collection facilities deliver combined sanitary sewer flows to the East Bremerton beach main. During normal dry weather operations East Bremerton flows are delivered from the East Bremerton beach main to West Bremerton through 16 and 24-inch inverted siphons.

The wastewater is then pumped into the Crosstown Pipeline force main and gravity-pressure sewer main system by pump station CE-1, along with flows from various West Bremerton basins. The Crosstown Pipeline delivers these pumped flows to the Westside WWTP. Wastewater from the remaining West Bremerton service areas is delivered to the WWTP via gravity sewer mains and pump stations.

During wet-weather conditions the East Bremerton beach main is pressurized by pump station EB-2 to increase peak flow capacity and most of the combined sewage flow is diverted to the Eastside Treatment Facility. The flow is treated at the facility and discharged to Port Washington Narrows.

The hydraulic capacity of the City's combined wastewater collection system and associated components is adequate to convey dry weather wastewater flows to the Westside WWTP for treatment. However, during extreme wet weather storm events, combined wet weather and wastewater flows can exceed the hydraulic capacity of the city's existing conveyance. When this occurs, excess untreated combined sanitary sewer flows have historically been allowed to overflow to receiving waters of Puget Sound. As a result of increasing water quality and environmental mandates, federal and state regulations have been developed to limit the occurrence of untreated CSOs.

The Eastside Treatment Facility was designed to provide treatment for the East Bremerton sewer flows during wet weather storm events to meet Puget Sound water quality standards. The facility was functional in December 2001 and completed in 2002. As Exhibit 73 (Column 9) shows, the Bremerton wastewater system has a current (2012) surplus of 17,717 ERUs, which has sufficient capacity to accommodate the 2025 population growth needs for the City and the West Bremerton, East Bremerton, and Gorst UGAs under the preferred land use plan (housing growth projections for the City, West Bremerton, East Bremerton, and Gorst UGAs is approximately 8,500 units).

The Health District declared Gorst and the surrounding area a "severe public health hazard" in 1997, due to the large number of failing septic systems in the area. The City of Bremerton received American Resource Recovery Act (ARRA) and other grant funding to construct two new municipal pump stations and a collection system that covers a 326-acre area. A total of 103 residences and 29 existing commercial businesses are connected to the Gorst sewer system. Flows are pumped to the Westside Wastewater Treatment Plant.

The City of Bremerton updated the Combined Sewer Overflow (CSO) Reduction Plan for Bremerton's drainage basins and began the "Cooperative Approach to CSO Reduction" in 2000. A total of 23 projects were completed, including two new pump stations, seven pump station upgrades, over 12 miles of new sanitary and storm sewers, construction of the new Eastside Wet Weather Treatment Plant, and a major upgrade to the Westside Wastewater Treatment Plant. The final CSO project was completed in 2009.

The city produces a CSO report that is submitted to Ecology on an annual basis. The 2010 report shows that the CSO reduction program has been very successful in reducing total overflow volume and frequency, with overflow volume reduced by 96.4 percent, frequency of events reduced by 99 percent, and compliance with CSO reduction requirements at all 15 sites. See the Bremerton Comprehensive Plan, Wastewater Comprehensive Plan Update, 2008 Wastewater Conveyance Planning document, and Capital Improvement Plan for further details.

City of Poulsbo Sewer Facilities

The current sanitary sewer service area for the City of Poulsbo is primarily within the city limits. The City contracts with Kitsap County for wastewater treatment at the Central Kitsap Treatment Plant. The City and County are currently planning and implementing improvements to both the City and County's existing systems to eliminate infiltration and inflow and to increase the capacity of the conveyance system. As Exhibit 73 shows, the City of Poulsbo wastewater system has a current (2012) surplus of 3,750 ERUs, which has sufficient capacity to accommodate growth for the City of Poulsbo during the planning period. Approximately 1,482 additional housing units are expected in Poulsbo and its UGA.

City of Port Orchard Sewer Facilities

The City of Port Orchard maintains, and operates a wastewater collection and treatment system that provides service to the City of Port Orchard, Utilities Local Improvement District (ULID) #6 UGA, and the Sidney Glen Elementary School, located outside the existing urban growth area. The collection system serving the ULID #6 UGA is a septic tank effluent pumping (STEP) system where effluent is pumped from conventional septic tanks to a sewer main located in the street.

The City of Port Orchard and West Sound Utility District (WSUD) jointly own the Wastewater Treatment Facility located east of Port Orchard along the south shore of Sinclair Inlet. The facility treats wastewater from the service areas of both West Sound and the City of Port Orchard totaling approximately 23,500 people, and discharges to Sinclair Inlet. WSUD and the City jointly manage the facility; however, WSUD is responsible for daily operation. Annual average day flow for 2007 was about 1.7 mgd. WSUD and the City expect to continue sharing treatment capacity equally. The facility was recently re-rated, increasing its capacity from 2.8 mgd to 4.2 mgd, with a peak day capacity of 16 mgd, which provides sufficient capacity to serve population growth within the City during the planning period. Along with the expansion, the treatment process was upgraded and can now produce Class A reclaimed water and Class A biosolids, which can be used for revegetation of commercial/industrial areas and as composting cover for tree farms.

City of Port Orchard population is about 8,569, and the city facility serves about 5,400 ERUs (see discussion below regarding the combined City/Westsound growth and treatment capacity). New residential development is occurring primarily in the center of the city, and in McCormick Woods subdivision with the City's UGA. Future wastewater collection system needs for portions of the Port Orchard/South Kitsap and ULID#6 UGAs are described in the City of Port Orchard Comprehensive Sanitary Sewer Plan Update (2010).

West Sound Utility District

WSUD generally serves the Port Orchard UGA east and south of the city limits. The district also provides sewer service in the rural area along Beach Drive to Watauga Beach. The current service area is approximately 5.5 square miles. The collection system consists of 11 pumping stations and about 45 miles of pipeline. The maximum capacity of the conveyance system is estimated to be 6.0 mgd. As Exhibit 73 shows, the joint West Sound-Port Orchard wastewater system has a current surplus of about 10,440 ERUs, which has sufficient capacity to accommodate the combined 2025 growth of Port Orchard and West Sound Utility District under the preferred land use plan (the Port Orchard and McCormick Woods/ULID6 housing growth is approximately 7,772 housing units). Future wastewater collection system needs for portions of the Port Orchard UGA that are within the WSUD service area are described in Karcher Creek Sewer District Comprehensive Sewer Plan (2006).

Port of Bremerton Sewer Facilities

The Port of Bremerton operates a public wastewater treatment plant located in the Olympic View Industrial Park on State Route 3 west of Gorst. The service area encompasses the port's 1,800 acres, which includes the Bremerton National Airport and the Olympic View Industrial Park.

Constructed in the 1970s and expanded in the mid-1980s, the plant serves the vast majority of businesses at the airport and industrial park. A few older business locations operate septic tank and drainfield systems. Ecology has designated the plant as a municipal plant and has rated the plant capacity at 72,500 gallons per day (average daily flow). The plant uses a combination gravity and pump station collection system with aeration lagoons and settling ponds for treatment and drainfields for disposal.

The plant is currently treating between 10,000 and 15,000 gallons per day depending on weather and business cycles and serving approximately 400 persons. Typical levels of sewage generation for light industrial business activity are 25 to 35 gallons of wastewater per day per person. The plant serves two commercial/industrial areas (the airport and industrial park) that have been designated for business, industrial, and airport activity since the first County comprehensive plan was developed in the 1970s.

Kitsap County Sanitary Sewer Facilities

Central Kitsap Wastewater Facilities

Kitsap County owns and operates conveyance and treatment facilities in the Central Kitsap service area. This service area is the largest system in Kitsap County and includes the naval facilities at Bangor, Keyport, and the City of Poulsbo along with the Silverdale and Central Kitsap UGAs. The plant also treats septic tank waste hauled to the plant.

The Central Kitsap collection system consists of approximately 44 lift stations and over 145 miles of gravity mains and force mains. In 1997, Pump Stations 3, 4, 12, 13, and 17 were converted from gaseous chlorine to sodium hypochlorite for odor control. In 2003, gaseous chlorine was also removed from the Johnson Road Chlorine Station and replaced with sodium hypochlorite.

Flows from the City of Poulsbo enter the northern portion of the collection system via a gravity siphon crossing from Lemolo to Keyport, across the mouth of Liberty Bay. Some of the collection and transfer systems serving the Meadowdale areas, downtown Silverdale, and northern portion of the Central Kitsap collection system are undersized for existing wastewater flows. A phased expansion of the conveyance and treatment facilities is planned to repair and replace worn facilities, and to extend service to surrounding areas. Modifications to accommodate current flows are included in the design phase.

Treatment facilities at the Central Kitsap Wastewater Treatment Plant (CKWWTP) are currently rated for an Average Daily Flow (ADF) of 6.0 mgd, with a peak hour flow of 15 mgd. The plant utilizes an activated sludge/solids contact process for secondary treatment of wastewater and an ultraviolet light disinfection system. The County plans to expand the plant based on the extent of growth predicted within the existing sewer service area. The second phase of construction at the plant will upgrade to 10.6 mgd ADF. The existing 68-acre site is expected to accommodate layout of facilities for capacity in excess of 25 mgd ADF.

As shown in Exhibit 73, the CKWWTP currently has capacity to accommodate additional growth – over 5,000 ERUs of capacity are currently available. As stated in the Sewer Facilities Needs Forecast on the following page, the sewer facility forecast assumes the possibility of all OSS disposal systems within the UGA transitioning to traditional wastewater collection service by 2025. This assumption results in the need for additional treatment capacity over time. The projects and estimated schedule for when this capacity will be needed is shown in Exhibit 75. The combination of existing capacity and future improvements will ensure that there is adequate capacity at the CKWWTP to accommodate both future growth, and conversion of all existing OSS to traditional sewers by 2025. For more information regarding the plant capacity and needed upgrades, please see Appendix C which includes a technical memo prepared by BHC Consultants.

Treated wastewater from the CKWWTP is discharged into the northern portion of Port Orchard Bay in Puget Sound. The outfall pipe has a maximum hydraulic capacity of approximately 31 mgd. The diffuser has a maximum hydraulic capacity of 16 mgd. Future extension of the existing diffuser is expected to provide sufficient dilution for the increased flow. The Central Kitsap Treatment Plant treats an average of 4.6 million gallons of sewage per day. The effluent is discharged approximately 3,200 feet offshore at a depth of 46 feet below mean low water.

The CKWWTP is the regional sludge treatment center for all County-owned treatment plants and septage from on-site treatment systems. Approximately 30 to 40 percent of the solids treated at the CKWWTP are derived from septage or sludge from other plants. Sludge treatment facilities at the CKWWTP include gravity thickening and dewatering. Currently, dewatered sludge is hauled to eastern or southwestern Washington for composting or land application. Future wastewater collection systems for the Silverdale and Central Kitsap UGAs include a total of 52 new pumping stations, with 135 miles of new gravity sewer and force mains to complete the major sewer collection system of these UGAs.

Kingston Wastewater Facilities

Sewer service in the Kingston area is owned and maintained by Kitsap County. The existing Kingston collection system consists of approximately 39,000 feet of gravity sewer pipe ranging in size from 6 to 12 inches in diameter and approximately 18,500 feet of force main ranging from 2 to 6 inches in diameter. Six pump stations serve the Kingston area, which serves approximately 777 ERUs.

Completed in May 2005, the Kingston wastewater treatment facility is designed to treat an average daily flow of 292,000 gallons per day. This is a 95% increase in capacity from the previous facility, and will accommodate residential and commercial growth in the Kingston area for the next 20 years. The plant utilizes an oxidation ditch, with two rotating stainless steel brushes, for biological treatment. Two oxidation ditches were constructed; one for current flows and one to accommodate future growth (500,000 gallons per day). Only the active ditch contains rotating brushes.

Built in conjunction with the new treatment plant and located on the old plant grounds, Pump Station #71 pumps all of the sewage generated in Kingston approximately 1.8 miles to the new plant.

Construction of a new outfall into Puget Sound was included in the improvements. Since the previous outfall was damaged during dredging operations by the State ferry system, the new pipe was located well outside the ferry corridor and extended to 165 feet below sea level to limit impacts on shellfish harvesting areas. Waste sludge from the Kingston WWTP is currently trucked to the Central Kitsap WWTP for digestion and treatment.

As Exhibit 73 shows, the Kingston wastewater system has a current (2012) surplus of 1,280 ERUs (2,925 additional people) which has enough capacity to accommodate the projected population associated with the preferred land use plan (approximately 1,133 dwelling unit growth).

Suquamish Wastewater Facilities

Kitsap County owns and operates the Suquamish wastewater conveyance and treatment facilities that provide sewer service to approximately 1,871 residents in the Suquamish area. The existing Suquamish ULID service area covers about 214 acres; however, sewer service has been extended to three areas lying outside the ULID.

The first of these areas covers about 44 acres and is located in the northwest corner of the growth study area. The second area is the Suquamish Shores residential development located in Port Madison. Suquamish Shores covers about 42 acres. The newest extension of the existing service area covers about 37 acres and lies west of Urban Avenue between Geneva Street and South Street. The plant serves the Suquamish Tribal Casino. The Tribal Casino pump station and collection system consist of approximately 48,200 linear feet of pipeline.

The McKinstry Street pumping station and the Division Street pump station are the pumping stations in the collection system. All wastewater in the system flows by gravity to these stations for transfer to the Suquamish WWTP. Existing sewers are sufficient to accommodate additional growth within the existing service area.

The Suquamish WWTP is a secondary plant with an ADF capacity of 0.4 mgd. The U.S. Environmental Protection Agency (EPA) is responsible for issuing the required National Pollutant Discharge Elimination System (NPDES) permit since the treatment plant is located within the Port Madison Tribal Reservation boundary. The County upgraded the existing facilities in 1997, expanding the plant from 0.2 to 0.4 mgd ADF capacity. Sludge from the plant is hauled for further treatment at the Central Kitsap WWTP.

Manchester Wastewater Facilities

Kitsap County owns and operates a small sewer collection and treatment system in Manchester. This system serves a population of approximately 1,000 people and treats an average flow of 0.19 mgd. The Manchester collection system consists of five pumping stations and approximately 60,000 linear feet of pipeline. Public sewers now serve approximately 25% of the land within the Limited Area of More Intense Rural Development (LAMIRD) boundary, although the remaining area is subdivided into smaller parcels and much of it is built out.

The current service area includes the EPA laboratory at Clam Bay and the Manchester Naval Fuel Depot. Waste flows from the Manchester Naval Fuel Depot originate from ships discharging sewage at the facility. Kitsap County

has an agreement with the Navy that requires the County to be notified when the Navy plans to discharge wastewater to the County's system. The Navy has storage facilities at the depot to allow holding of wastewater if the County does not permit immediate discharge.

The plant provides for an ADF capacity of 0.46 mgd. Sludge from the Manchester WWTP is thickened, temporarily stored on the plant site and then hauled to the Central Kitsap WWTP for treatment. The outfall provides sufficient capacity for discharge of the projected future wastewater flows.

Navy Yard City Sanitary Sewer Facilities (Sewer District 1)

Kitsap County owns and maintains a sewage collection system in the area commonly referred to as Navy Yard City within the West Bremerton UGA. The collection system consists of two pump stations and 9.2 miles of pipeline and serves approximately 970 residential and commercial units.

Over the years, Kitsap County and the City of Bremerton have discussed the possibility of transferring a collection system. Currently, the County contracts with the City for treatment capacity at the West Bremerton treatment facility. Kitsap County and the City of Bremerton expect to continue to discuss the possibility of transferring the collection system to the city through an ILA and Resolution.

Private Sanitary Sewer Facilities

Port Gamble/S'Klallam Tribe Reservation Sewer Facilities

The Port Gamble/S'Klallam reservation is located along the northeast shore of Port Gamble. Failing septic drainfields and concern for the environment of Port Gamble Bay have prompted the Port Gamble/S'Klallam Tribe to construct wastewater collection and secondary treatment facilities. The collection system uses gravity sewers and septic tank effluent pumping (STEP) systems to convey wastewater to a recirculating sand filter for secondary treatment and subsurface disposal of the liquid effluent.

Four lift stations and associated pipeline are constructed along Little Boston Road. Solids accumulating in the septic tanks continue to require removal and hauling to a regional plant that accepts such wastes (e.g., Central Kitsap WWTP). Treatment facilities are designed for an initial average design flow capacity of 0.05 mgd with ultimate expansion to 0.1 mgd to serve a projected population of 1,565 people.

Port Gamble Sewer Facilities

Pope Resources (Olympic Resource Management) owns and operates the sewer collection and treatment system in Port Gamble. This system is a small, prefabricated plant, serving approximately 40 homes for Port Gamble residents, the former mill site, nursery, and commercial offices. The total wastewater plant capacity is approximately 25,000 gpd and current flows are approximately 13,000 gpd.

The outfall is located in relatively shallow water in Hood Canal. Pope Resources also provides potable water and solid waste removal services for this area. Any changes or upgrades to the Port Gamble system will be subject to conditions in the operating permit. No upgrades or changes are currently known at this time. However, no development shall be allowed unless adequate infrastructure, including but not limited to sewer and water service, is available.

Sewer Facilities Needs Forecast

The purpose of the Sewer Facilities Plan of the Capital Facility Element is to ensure there are adequate facilities for sewer service as the population increases. This plan addresses existing and future facility needs, and provides a financial plan to indicate revenue sources for funding the increase in sewer services. Facilities and financial planning for sewer service purveyors other than Kitsap County Department of Public Works (e.g. cities, tribes, private districts) are summarized in this plan and are described in greater detail in each of the City's and district's CFPs.

Sewer system planning is based on the assumption that sewer service will only be provided in areas located within UGA boundaries or LAMIRDs except where a significant threat to human and/or environmental health is identified. Projects planned in the six-year CFP are for service to areas within UGA boundaries or LAMIRDs. Most of these

projects are physically located within UGA boundaries, or are associated with existing facilities located outside UGA boundaries (e.g., improvements to the Central Kitsap WWTP). Sewer projects planned for 2013-2018 as well as in 2019-2025 focus on providing service to customers located within (1) existing sewer districts (i.e., in-fill), and (2) UGAs (i.e., extensions).

The sewer facility planning forecast assumes that existing, acceptably operating, on-site sewage (OSS) disposal systems will continue to be used for some existing developments within the UGAs until such time that municipal sanitary sewers are available, and replacement of the existing OSS is required in order to support redevelopment or meet applicable development code and public health statutes. The sewer facility forecast also assumes that other approved wastewater treatment and disposal options may be used for new development where urban densities, lot sizes, and physical characteristics meet applicable regulatory criteria such as soil type and setbacks to surface water or wells. However, Kitsap County and its wastewater service providers assumed the possibility of all OSS disposal systems transitioning to traditional wastewater collection service by 2025. This need is documented in plant capacity and conveyance infrastructure, as well as secured and potential future funding sources as reflected in this CFP and associated appendices. Funding for these facilities is expected to include private funding sources such as Local Improvement Districts (LIDs) and developer extensions for conveyance infrastructure.

Level of Service

The adequacy of existing sewer facilities to meet present and future needs is based on the estimated gallons per day of wastewater for the current sewered population and for the projected future sewered population. It is also based on an assumed existing and planned Level of Service (LOS) for sewer service. There is an average of 2.5 people per household in Kitsap County. Current wastewater flow data indicates that an average of 70 to 100 gallons per capita per day (GPCD) is used. With an average of 2.5 people per dwelling unit, a residential connection will generate a demand for treatment of 250 gallons per day. These characteristics serve as a planning standard or LOS for sewer service during the next 20-year planning period. Based on this standard and sewered population allocation, it is possible to identify future deficiencies in various sewer systems and the capital projects necessary to correct those deficiencies. Current wastewater flow data from Kitsap County facilities indicates that approximately 70 GPCD may be a more representative of typical sewer service demand, so the 250 gpd LOS standard is likely somewhat conservative.

Capital Projects and Funding

Sewer system capital projects have been identified based on a combination of existing Sewer Comprehensive Plans, work that was conducted for the County's 2007 Wastewater Infrastructure Task (WIT) Force and supplemental technical analysis associated with each UGA. Individual projects for each UGA are summarized in the following exhibits and include both capital cost and expected revenue sources. Additional information on potential revenue sources that may be used for sewer facilities is provided in Appendix C. For summary purposes, Exhibit 74 provides an overview of capital costs for the Preferred Land Use Plan by UGA. Details of the projects are found below by each service provider.

Exhibit 74
Sewer Cost Comparison by UGA for the Preferred Land Use Plan 2013-2025 (All Amounts in $1,000)

UGA	Cost
East Bremerton	16,648
West Bremerton	20,316
Gorst	100
Port Orchard (City)	12,930
Port Orchard (West Sound Utility District)	12,631
Poulsbo (City)	1,600 [1]
Central County Sewer Service Area	
Central Kitsap UGA (Conveyance)	95,825
Silverdale UGA (Conveyance)	120,370
Keyport LAMIRD (Conveyance)	12,730
Central Kitsap WWTP	118,568
Suquamish	5,531
Kingston	

UGA	Cost
Kingston Conveyance	23,366
Kingston WWTP	500
TOTAL	**441,115**

[1] Rounded up from 1,599
Sources: County and Special District Service Providers; BHC Consultants; Parametrix 2012

Kitsap County 2013-2025 Capital Improvement Projects – Overview

The County's sanitary sewer facilities improvements are summarized below, and the proposed schedule, costs, and financing plan is shown in Exhibit 75. The 2013-2018 six-year CIP section of Exhibit 75 is based primarily on publicly funded projects. Projects that are in the 2019-2025 period could move up to the 2013-2018 period based on specific requirements to serve new development, or environmental or public health concerns that warrant sewer service extension. Specific revenue sources for these projects would be identified and reflected in annual wastewater CIP updates prepared by service providers. Additional detail on Kitsap County sanitary sewer projects and costs is provided in the *Kitsap County GMA Remand – Analysis of System Needs for Central Kitsap, Silverdale, and Kingston UGAs, Keyport Area and Suquamish Area* (BHC 2012).

Selected CIPs for the period 2019 through 2025 are also presented in the table as a total cost for each category of improvements. These costs are for the upgrade/replacement of other existing pump stations, force mains and gravity sewers as well as new pump stations, force mains and gravity collectors and interceptors to provide sewer service beyond the existing County sewer systems. Major capital projects associated with the Kitsap County wastewater system are described below.

Central Kitsap System

Improvements identified for the existing Central Kitsap sewer system include pump station upgrades and pipe replacements projects. The capital improvement program (CIP) for the Central Kitsap UGA for the 2013-2025 planning period is summarized in Exhibit 73. Four of these projects are included in the 2013-2018 CIP. The remaining existing infrastructure projects are scheduled for completion during 2019-2025. New infrastructure improvements to extend sewer service beyond the existing Central Kitsap system are also summarized and would be implemented as development occurs in those areas.

Pump Station-6 Upgrades (CFP Project No. CK-1)

Pump Station #6 is the major station serving the west Central Kitsap area. It is an older pump station that is currently exceeding design capacity of 1,400 gpm. It is regarded as a high priority project due to the age and poor condition of existing controls and pump motors. Replacement of the pumps with new pumps and motors, installation of new electrical components and a larger generator will increase pumping capacity to 3,200 gpm and increase the reliability of the station. A design report for these improvements is currently being completed and it is anticipated that final design work on this project will begin in the summer of 2012.

Pump Station-8 Upgrades (CFP Project No. CK-2)

Pump Station #8 serves the southeastern area of Central Kitsap area. Existing flows currently exceed design capacity of 400 gpm and the existing equipment has outlived its 30-year life. Replacement of the pumps and motors, installation of new electrical components and a larger generator will increase pumping capacity to 1,800 gpm and increase reliability of the station. A design report for these improvements is also currently being completed and it is anticipated that final design work on this project will begin in the summer of 2012.

Pump Station-10 Upgrades (CFP Project No. CK-5)

Pump Station #10 is a small pump station with a design capacity of 270 gpm serving the Meadowdale west area. An upgrade is required after 2018 due to flows projected to increase to 500 gpm during the planning period.

Pump Station-32 Upgrades (CFP Project No. CK-6)

Pump Station #32 is also a small pump station with a design capacity of 165 gpm serving the southern Central Kitsap area around SR303. Wastewater flows are projected to increase to 240 gpm during the planning period requiring an upgrade after 2018.

Pump Station-33 Upgrades (CFP Project No. CK-7)

Pump Station #33 is a small pump station with a design capacity of 90 gpm serving the south-central area of the UGA. Wastewater flows are projected to increase to about 95 gpm by the end of the planning period requiring an upgrade after 2018.

Pump Station -34 Upgrades (CFP Project No. CK-8)

This medium sized pump station with a design capacity of 900 gpm serves the southwest Central Kitsap area. It will become a major pump station with design pumping capacity of 1,700 gpm requiring an upgrade after 2018.

Pump Station -36 Upgrades (CFP Project No. CK-9)

Pump Station # 36 is a small pump station with a design capacity of 150 gpm serving the area immediately south of Pump Station 6. Wastewater flows are projected to increase to 155 gpm by the end of the planning period and would require an upgrade after 2018.

Pump Station -62 Upgrades (CFP Project No. CK-10)

Pump Station #62 is a small pump station with a design capacity of 50 gpm serving the northeast Central Kitsap area. An upgrade is required after 2018 due to projected flows increasing to 80 gpm during the planning period.

Pump Station -65 Upgrades (CFP Project No. CK-11)

Pump Station #65 is a medium-sized facility with a design capacity of 300 gpm serving the Illahee area and southeast Central Kitsap UGA. It will require an upgrade after 2018 due to projected flows increasing to 800 gpm during the planning period.

Pump Station -69 Upgrades (CFP Project No. CK-12)

Pump Station #69 is small facility with a design capacity of 160 gpm serving the south Central Kitsap area. Flows are projected to increase to 250 gpm during the planning period requiring an upgrade after 2018.

New Medium Sized Pump Stations (CFP Project No. CK-21)

Three new medium sized pump stations will be required to serve areas beyond the existing Central Kitsap sewer system as the areas develop. One facility will be located in the southeast Central Kitsap area having a design capacity of about 340 gpm and will discharge to the existing system upstream of Pump Station #65. The other two facilities will be located in the southwest Central Kitsap area and will discharge to the existing system upstream of Pump Station #34.

New Small Sized Pump Stations (CFP Project No. CK-21)

Thirteen new small pump stations will be required to serve the remainder of the Central Kitsap UGA as these areas develop. These facilities will have design pumping capacities less than 200 gpm and will generally be located either along the Port Orchard Bay shoreline or the Dyes Inlet shoreline.

PS-6 Force Main/South Old Military Road Pipe Replacement (CFP Project No. CK-3)

Replacement of the force main with about 1,150 feet of 16-inch pipe is required to avoid excessive flow velocities when the pumping capacity of Pump Station #6 is increased. This project also includes the construction of about 3,250 feet of 24-inch new force main located on South Old Military Road, parallel to the existing 30-inch force

main, to convey the flows from Pump Station #6 force main to mitigate current surcharging problems in the sections of the existing pipe where manholes are accessed for cleaning the pipe. A design report for these improvements is also currently being completed and it is anticipated that final design work on this project will begin in the summer of 2012.

PS-8 Downstream Conveyance Improvements (CFP Project No. CK-4)

When Pump Station #8 is upgraded, the higher flows will increase existing surcharging problems experienced in the interceptor pipes immediately upstream of Pump Station #7. These problems will be alleviated by the construction of approximately 5,680 feet of new 12-inch force main and about 3,000 feet of new 15-inch gravity sewer. The alignment for the new force main will run from PS-8 along NE McWilliams Road NE, north along Johnson Road NE through an existing easement to Clover Blossom Lane NE and then extend to NE John Carlson Road. The new gravity sewer will replace the existing 8-inch sewer from the intersection of Clover Blossom Lane NE and NE John Carlson Road west along NE John Carlson Road/NE Fairground Road to PS-7. A design report for these improvements is also currently being completed and it is anticipated that final design work on this project will begin in the summer of 2012.

North Old Military Road Pipe Replacement (CFP Project No. CK-13)

Increasing flows projected for the Central Kitsap during the planning period will require the replacement of the force main extending the South Old Military Road Pipe Replacement improvements (CFP Project #7) from Foster Road NE north along NE Old Military Road, west along NE Waaga Way, then north along County Road NE to Paulson Road. This project will consist of replacement of about 7,780 feet of existing 16-inch force main with 24-inch force main and will be required after 2018.

PS-18 Conveyance System Improvements (CFP Project No. CK-14)

As the flows from Pump Station #18 continue to increase during the planning period, the gravity sewer that receives flow from PS #18 force main must be replaced due to surcharging in the existing 8-inch pipe. The replacement gravity sewer will consist of about 1,825 feet of new 12-inch pipe along NE John Carlson Road from the discharge manhole for the force main to Clover Blossom Lane NE. This project will be required after 2018.

PS-65 Force Main Replacement (CFP Project No. CK-15)

The existing 6-inch force main from PS-65 will experience high flow velocities and cause significant head loss when PS-65 is upgraded and has a higher pumping capacity. Approximately 6,400 feet of existing force main will be replaced with 10-inch diameter pipe after 2018.

PS-69 Force Main Replacement (CFP Project No. CK-16)

The existing force main and gravity pipe downstream from PS-69 must be replaced when PS-69 is upgraded. Approximately 2730 feet of 4-inch force main will have high flow velocities and be replaced with 6-inch diameter pipe after 2018. The force main discharges to an 8-inch gravity sewer that will become surcharged when PS-69 is upgraded and the gravity sewer replacement project will consist of about 1,110 feet of 12-inch diameter pipe.

PS-32 Gravity Sewer Replacement (CFP Project No. CK-17)

The existing gravity sewer receiving the flows from PS-32 force main will experience excessive flow velocities after PS-32 is upgraded. Approximately 900 feet of 8-inch pipe will be replaced with 12-inch pipe when the PS-32 upgrade project is undertaken.

PS-36 Force Main Replacement (CFP Project No. CK-18)

The existing force main from PS-36 experiences excessive flow velocities that will worsen when PS-36 is upgraded. Approximately 700 feet of 4-incg pipe will be replaced with 8-inch diameter pipe when the PS-36 upgrade project is undertaken.

New Force Mains (CFP Project No. CK-19)

Approximately 35,000 feet of force main will be required to connect the new pump stations located in the UGA to the existing Central Kitsap UGA sewer system. The new force mains will consist of about 6,600 feet of 8-inch diameter pipe, 12,600 feet of 6-inch pipe with the remaining 16,000 feet consisting of 4-inch and 2-inch diameter pipe.

New Gravity Collectors (CFP Project No. CK-20)

Approximately 75,600 feet of gravity collector sewers will be required to convey wastewater generated in areas beyond the existing sewer system service area to the new pumps stations. It is assumed that these collectors will be 8-inch diameter pipe.

Silverdale System

Improvements identified for the existing Silverdale sewer system include pump station upgrades and pipe replacements projects. Six of these projects are included in the 2013-2018 CIP. The remaining existing infrastructure projects are scheduled for completion during 2019-2025. New infrastructure improvements to extend sewer service beyond the existing Silverdale system are also summarized in Exhibit 75 and would be implemented as development occurs in those areas.

Pump Station-1 Upgrades (CFP Project No. Silverdale-1)

Pump Station #1 is a major facility serving the northern Silverdale area. Wastewater flows are projected to exceed 85% of design capacity (2,100 gpm) by 2013. It also is a high priority project due to the age and poor condition of existing controls and pump motors. Replacement of the pumps and motors, installation of new electrical components and a larger generator will increase pumping capacity to 3,200 gpm and improve reliability of the station. A design report for these improvements is currently being completed and it is anticipated that final design work on this project will begin in the summer of 2012.

Pump Station-3 Upgrades (CFP Project No. Silverdale-2)

Pump Station #3 is a major conveyance facility serving the western Silverdale service area. Existing wastewater flows exceed design pumping capacity (1,800 gpm) and are projected to increase significantly due to population growth in the service area. The pump station improvements will include new pumps and motors to increase the design capacity to 3,600 gpm and related electrical upgrades. The project is scheduled to begin in 2017.

Pump Station-4 Upgrades (CFP Project No. Silverdale-3)

Pump Station #4 is a major conveyance facility serving the northern Silverdale service area as well as receiving flows from Pump Station #3. Existing wastewater flows exceed 85% of design pumping capacity (3,000 gpm) that may be exceeded when Pump Station #1 is upgraded. In addition, flows are projected to increase significantly due to population growth in the service area. The pump station improvements will include new pumps and motors to increase the design capacity to 7,500 gpm and related electrical upgrades. The project is scheduled to begin in 2017.

Pump Station-12 Upgrades (CFP Project No. Silverdale-7)

Pump Station #12 is a medium sized facility with an existing design capacity of 850 gpm serving the south Silverdale area, including receiving wastewater flows from Pump Station #13. Wastewater flows to the pump station are projected to increase to 1,800 gpm during the planning period which will require an upgrade after 2018.

Pump Station-21 Upgrades (CFP Project No. Silverdale-8)

Pump Station #21 serves the north Silverdale area and has an existing design capacity of 240 gpm. Wastewater flows are projected to increase to 450 gpm during the planning period and a facility upgrade will be required after 2018.

Pump Station-22 Upgrades (CFP Project No. Silverdale-9)

Pump Station #22 is a medium sized facility receives flows from PS-22 and also serves the north Silverdale area. Wastewater flows are projected to increase to 850 gpm which will require a facility upgrade after 2018.

New Medium Sized Pump Stations (CFP Project No. Silverdale- 21)

Six new medium sized pump stations will be required to provide sewer service beyond the existing system in the Silverdale UGA. Two new facilities with design capacities of 240 gpm and 275 gpm will be located in the northeast Silverdale area to convey flows around Island Lake to Pump Station #22. One new pump station with design capacity of about 500 gpm will be required in the north-central Silverdale area and discharge to the PS #1 collection system. Two pump stations each with design capacities of about 200 gpm will serve the southeast area and discharge to the PS#12 system. The sixth new pump station with design capacity of about 300 gpm will serve the area northeast of Dyes Inlet and will discharge to the PS #4 collection system.

New Small Sized Pump Stations (CFP Project No. Silverdale-21)

Sixteen new small pump stations will be required to serve the remainder of the Silverdale UGA as the area develops. These facilities will have design pumping capacities less than 200 gpm and will generally located along the boundary of the Silverdale UGA.

Silverdale Way Pipe Replacement (CFP Project No. Silverdale-4)

Existing flow surcharging conditions are experienced in the interceptor upstream of Pump Station #1 due to inadequate pipe size and backwater conditions from Pump Station #1. This project is the replacement of about 2,840 feet of existing 8 and 10-inch pipe with 12 and 15-inch pipe north of Waaga Way along Silverdale Way. A design report for these improvements is currently being completed and it is anticipated that final design work on this project will begin in the summer of 2012.

Bayshore Pipe Replacement (CFP Project No. Silverdale-5)

This project replaces about 1,865 feet of existing gravity sewer that serves the area immediately north of Pump Station #3. The project is high priority due to excessive cleaning required by Public Works staff and is scheduled to start in 2013.

Lower Anderson Hill Road to Pump Station 3 Pipe Replacement (CFP Project No. Silverdale-6)

This project is also a pipe replacement project designed to correct flow surcharging and cleaning problems experienced by Public Works staff. Approximately 3,700 feet of 8-inch gravity sewer will be replaced with 12 and 15-inch pipe from Pump Station #3, upstream through Old Town Silverdale, across Silverdale Way and continuing up Anderson Hill Road past the high school. The project is high priority and is scheduled to start in 2015.

Washington Avenue Pipe Replacement (CFP Project No. Silverdale-10)

Approximately 800 feet of existing gravity sewer located in Washington Avenue north of PS #3 needs to be replaced to eliminate surcharging conditions caused by projected wastewater flows. The project will consist of replacing about 680 feet of 8-inch pipe with 12-inch diameter pipe and about 120 feet of 15 and 16-inch gravity sewer with 18-inch pipe. This project will be required after 2018.

Silverdale Way to PS-1 Pipe Replacement (CFP Project No. Silverdale-11)

This project involves the replacement of about 4,800 feet of conveyance pipe downstream from the Silverdale Way Pipe Replacement Project (CFP Project #4) described above. Projected flows for the northwestern Silverdale service area will cause surcharging of the conveyance system between the CFP Project #4 improvements and PS #1. These improvements will consist of constructing about 1,640 feet of new 15-inch gravity sewer and upsizing an additional 3,200 feet of existing 15-inch and 18-inch gravity sewer to 18-inch and 21-inch diameter pipe, respectively. This project is required after 2018.

Levin Road NW Pipe Replacement (CFP Project No. Silverdale-12)

This project consists of replacing about 2,030 feet of 8-inch gravity sewer with 12-inch pipe along Levin Road in downtown Silverdale. The larger pipe is required after 2018 to eliminate surcharging conditions that would occur due to higher wastewater flows projected during the planning period.

Provost Road Pipe Replacement (CFP Project No. Silverdale -13)

This conveyance system project is required due to increased wastewater flows projected to occur during the planning period in the west-central Silverdale area upstream of PS #12. The project consists of replacing about 3,750 feet of 8-inch gravity sewer with 12-inch diameter pipe and is required after 2018.

PS-4 Force Main Replacement (CFP Project No. Silverdale-14)

Once PS #4 is upgraded, the higher pumping rates will cause excessive flow velocities and significant head loss in the force main. This project consists of replacing about 8,700 feet of 14-inch and 20-inch force main with 24-inch diameter pipe from PS #4 to the connection with the North Old Military Road force main along Waaga Way.

Fredrickson Road NW Pipe Replacement (CFP Project No. Silverdale-15)

This project consists of replacing the gravity conveyance pipe upstream of PS #4 to eliminate surcharging conditions that would be caused by increased flows from PS #1 and additional local flow projected during the planning period. Approximately 1,330 feet of 15-inch gravity sewer will be replaced with 21-inch diameter pipe. This project is required after 2018.

Upper Anderson Hill Road Pipe Replacement (CFP Project No. Silverdale-16)

This project is a continuation of the pipe replacement project along Anderson Hill Road from PS #3 to the high school to eliminate surcharging that would be caused by projected higher wastewater flows. It will consist of replacing about 2,000 feet of 8-inch pipe with 12-inch diameter pipe after 2018.

LS-22 Force Main & Gravity Sewer Replacement (CFP Project No. Silverdale-17)

After LS-22 is upgraded, the increased pumping rates will cause excessive flow velocities in the existing force main. This project consists of replacing about 1,050 feet of 6-inch force main with 8-ich diameter pipe and about 450 feet of 8-inch gravity sewer with 12-inch diameter pipe after 2018.

New Force Mains (CFP Project No. Silverdale-18)

Approximately 31,000 feet of force main will be required to connect the new pump stations located in the UGA to the existing Silverdale UGA sewer system. About 1,600 feet of new force mains will be 6-inch diameter pipe with the remainder being 4-inch pipe or smaller.

New Gravity Collector Sewers (CFP Project No. Silverdale-19)

Approximately 122,000 feet of gravity collector sewers will be required to convey wastewater generated in areas beyond the existing sewer system service area to the new pumps stations. It is assumed that these collectors will be 8-inch diameter pipe.

Central Kitsap Wastewater Treatment Plant

The CIP for the Central Kitsap Wastewater Treatment Plant (CKTP) consists of three projects during the 6-Year CIP with 5 projects implemented in 2019-2025 (Exhibit 75). Three of the projects are capacity related while the others are scheduled for implementation as funding becomes available in the planning period. Average annual wastewater flows at CKTP are projected to increase from about 4.2 mgd in 2012 to 7 mgd in 2025. Maximum month flows are projected to increase from 5.3 mgd to 8.8 mgd during the same period. Flows are assumed to increase linearly during the planning period to estimate when the improvements will be required for the CIP.

However, the timing of improvements will be determined by actual increased flows and pollutants loadings to the facility.

The existing National Pollutant Discharge Elimination System (NPDES) discharge permit issued by Ecology to Kitsap County for CKTP has design criteria for maximum month influent flow (6.0 mgd) and maximum month loadings of biochemical oxygen demand and total suspended solids. Whenever any of the actual flows or loadings reaches 85% of the design criteria for three consecutive months or if projected increases in flows or loadings would reach design capacity within five years, the NPDES discharge permit states that the County must begin a plan to expand the capacity of CKTP or take other actions to avoid exceeding the design criteria. Thus, as wastewater flows and loadings increase, Kitsap County will be required to review the adopted CIP developed for CKTP and take appropriate actions to remain in compliance with the NPDES discharge permit.

The estimated maximum month influent flow of 4.2 mgd is about 88% of the 6.0 mgd design criterion. Final design of new primary sedimentation tanks is scheduled to begin in 2013 to provide additional treatment capacity until about 2030. However, the secondary clarifiers are projected to become the flow constraint in 2020. Therefore, final design of the secondary clarifiers is scheduled to begin in 2017 with completion of construction in 2020. This project would result in sufficient treatment capacity at CKTP through the planning period. The actual date for construction of the secondary clarifiers will depend on actual increases in flow as described above.

Reclamation and Reuse (CFP Project No. CKTP-1)

The Reclamation and Reuse project consists of waste activated sludge thickening facilities, a plant process water system, reclaimed water production facilities, aeration basin modifications for nitrogen removal, high efficiency blowers, an aeration diffuser system upgrade and a digester gas cogeneration system. The project is a high priority project, currently in final design and expected to be advertised for bidding in 2013.

Primary Sedimentation Tanks (CFP Project No. CKTP-2)

The existing primary sedimentation tanks are projected to reach their maximum month flow design capacity of 6.3 mgd in 2016. New primary sedimentation tanks will be required by then to provide treatment for higher flows.

Secondary Clarifiers (CFP Project No. CKTP-3)

The existing secondary clarifiers are projected to reach their maximum month flow design capacity of 7.3 mgd in 2020. New secondary clarifiers are required to treat higher flows.

Reclaimed Water Filters (CFP Project No. CKTP-4)

The reclaimed water system constructed during the 6-Year CIP will have capacity to treat up to 3.5 mgd. The timing for the construction of additional reclaimed water filters will depend on the actual demand for utilization of reclaimed water in the planning period and is not expected until after 2019.

Existing Digester Improvements (CFP Project No. CKTP-5)

The existing digester improvements project consists of facilities to upgrade sludge withdrawal, heating and mixing in the existing two digesters. The existing equipment will have reached its design life by 2025 and the upgrades are scheduled for implementation by then.

New Administration Building (CFP Project No. CKTP-6)

The existing administration building will be reaching the end of its useful life and have limited room for expanded operations by 2015. The new administration building is scheduled for construction by 2015 to accommodate anticipated future operations and maintenance needs.

Laboratory Expansion (CFP Project No. CKTP-7)

Expansion of the existing laboratory is also expected to be required by 2025 to provide space and equipment for future monitoring requirements.

Storage and Maintenance Building (CFP Project No. CKTP-8)

Additional storage and maintenance areas will be required in the future as the treatment processes increase in size with increasing wastewater flows. An additional storage and maintenance building is scheduled for construction by 2025.

Kingston System

Improvements identified for the existing Kingston sewer system include pump station upgrades, a pipe replacement project, and miscellaneous manhole and vault projects. The capital improvement program (CIP) for the Kingston UGA for the 2013-2025 planning period is summarized in Exhibit 75. Five of these projects are included in the 2013-2018 CIP consisting of four sewer system projects and one project at the Kingston Wastewater Treatment Plant. The remaining existing infrastructure projects are scheduled for completion during 2019-2025. New infrastructure improvements to extend sewer service beyond the existing Kingston system are also summarized and would be implemented as development occurs in those areas.

LS-41 Upgrades (CFP Project No. Kingston-1)

Peak hour flows into LS-41 were projected to exceed the current station capacity in 2011, although discussions with County staff indicated that the pump station has not failed due to being under capacity. LS-41 has also reached the end of its design life. Therefore, a full station upgrade including higher capacity pumps, a flow meter, new electrical equipment, new controls, new piping and appurtenances, and a new wet well is recommended. This project is a high priority and is scheduled to start in 2013.

LS-71 Upgrades (CFP Project No. Kingston-2)

Peak hour flows into LS-71 are projected to exceed the current station capacity in 2016. The station is relatively new, therefore it is assumed that the control and wet well are in adequate condition and do not need to be replaced. Recommended upgrades include higher capacity pumps, new electrical equipment, and new piping and appurtenances. This project is also a high priority and is scheduled to start in 2013.

Force Main Vaults (CFP Project No. Kingston-3)

This project includes installation of flow meters located in underground vaults at LS-42, LS-43, LS-52, and LS-72. This project is scheduled to begin in 2015.

Miscellaneous Maintenance Projects (CFP Project No. Kingston-4)

This project includes installation of manholes at NE California Street, E 3rd Street, and near LS-41 to facilitate cleaning and maintenance of the sewer system. This project is scheduled to begin in 2013.

LS-71 Inflow Pipe Replacement (CFP Project No. Kingston-5)

This project includes replacing approximately 50 feet of 10-inch PVC gravity pipe draining into the wet well with a 15-inch pipe to accommodate the increased future flows. It is recommended that this project be completed concurrent with the LS-71 replacement scheduled to start in 2013.

New Arborwood Pump Station (CFP Project No. Kingston-6))

A new Arborwood Pump Station will serve the southern Kingston UGA. It will have a design capacity of 510 gpm and will discharge directly to the Kingston WWTP. The pump station is proposed to be built as part of the Arborwood Plat which has preliminary approval from Kitsap County. This project is scheduled to start after 2018.

New Small Pump Stations (CFP Project No. Kingston-7)

Four new small pump stations will be required to serve the remainder of the Kingston UGA. Two of these facilities will be located in the southern portion of the Kingston UGA and two will be located in the western Kingston UGA. These projects are scheduled to start after 2018.

New Force Mains (CFP Project No. Kingston-8)

The new pump stations will require a total of approximately 1,400 LF of 2-inch force main, 3,600 LF of 4-inch force main, and 7,100 LF of 8-inch force main. The largest project will be 4,200 feet of 8-inch force main for the Arborwood Pump Station. Approximately 500 feet of 12-inch gravity sewer will also be required to convey flows from the new Arness Pump Station force main to the Arborwood Pump Station. These projects are scheduled to start after 2018.

New Gravity Sewers (CFP Project No. Kingston-9)

Approximately 36,100 feet of 8-inch gravity sewer will be required as collector/interceptor pipe to provide service beyond the existing Kingston sewer system. The largest project will be approximately 14,000 feet of 8-inch collectors for the Arborwood system. These projects are scheduled to start after 2018.

WWTP Reclaimed Water (CFP Project No. Kingston-10)

The Kingston WWTP Reclaimed Water project consists of the addition of facilities to produce reclaimed water for reclamation and reuse purposes in the Kingston UGA. Potential reclamation/reuse opportunities include wetlands enhancement, streamflow augmentation and golf course irrigation. The first phase of the improvement program will be a pre-design effort that will be completed during 2013-2014.

Keyport LAMIRD System

The improvements identified for the Keyport LAMIRD consist of modifying one pump station with an upgrade to a second pump station, both located in the Keyport community. The majority of wastewater flows through these pump stations originate in the City of Poulsbo and the pipeline conveying these flows is called the Lemolo Peninsula pipeline, which must be replaced as the flows from Poulsbo increase. These projects are described in more detail in the 2011 Central Kitsap Wastewater Facility Plan, Appendix 7G.

Pump Station #16/#67 Upgrades (CFP Project No. Keyport-1)

This project is designed to increase the capacity of the wastewater conveyance system from the City of Poulsbo to the Central Kitsap Wastewater Treatment Plant. Pump Station #16 has a design capacity of 2,500 gpm and currently conveys the wastewater from Poulsbo while Pump Station #67 (design capacity of 1,300 gpm) serves the Keyport area, including the Navy facilities. This project consists of diverting the Poulsbo flows around Pump Station #67 and increasing the capacity at Pump Station # 67 (4,000 gpm) for the higher flows. Pump Station #16 would be a smaller facility to serve the local Keyport community. This project is considered a high priority project due to the age and poor condition of Pump Station #16. The project is scheduled to begin in 2014.

Lemolo Peninsula Pipe Replacement (CFP Project No. Keyport-2)

The existing Lemolo Peninsula pipeline consists of 4,450 feet of 14-inch low pressure/gravity pipe that currently has some manhole surcharging. As wastewater flow increases from the City of Poulsbo during the planning period, the surcharging will become significant and the pipe will be replaced with 18-inch pipe. This replacement pipe will function as a force main along its entire length to provide the head necessary to convey flows around PS #16 to PS #67 in Keyport after those pump station upgrades have been completed. This project is scheduled to start after 2018.

Suquamish System

The Suquamish area projects consist of four projects designed to reduce infiltration and inflow (I&I) to the Suquamish sewer system. Three of the projects are scheduled for implementation during the 6-Year CIP with the fourth project implemented before 2025

Prospect and Division Sewer Basin Improvements (CFP Project No. Suquamish-1)

This project consists of replacing approximately 3,350 feet of existing 8-ich sewer main, rehabilitating 86 laterals and replacing 16 manholes to eliminate about 255 gpm of I&I. The project is scheduled for construction in 2013.

Park and Center Sewer Basin Improvements (CFP Project No. Suquamish-2)

This project consists of replacing or rehabilitating approximately 6,300 feet of sewer main and 86 laterals and replacing 29 manholes to eliminate 56 gpm of I&I. The project is scheduled for implementation starting in 2013 with completion on 2014.

Harris and Angeline Sewer Basin Improvements (CFP Project No. Suquamish-3)

This project consists of cast in place pipe (CIPP) lining of approximately 1,050 feet of 8-inch sewer main to eliminate about 19 gpm of I&I. The project is scheduled for construction in 2015.

Beach Sewer Main Improvements (CFP Project No. Suquamish-4)

This project involves replacement of the beach sewer main by sliplining the existing sewer main. The project would be undertaken if video inspections show corrosion and structural failures in the sewer main. It is assumed that the project would be completed sometime after 2018.

Exhibit 75
Sanitary Sewer -- Kitsap County Systems Capital Facilities Projects and Financing 2013-2025 (All Amounts in $1,000) – Preferred Land Use Plan

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2013-2018 Total	2019-2025 Total	2013-2025 Total
Six Year Capital Facility Improvements										
Central Kitsap Service Area										
Project # CK-1 PS-6 Upgrades	Yes									
Cost		105	209	888	888			2,090		2,090
Revenue: Sewer Revenue Bonds		106	209	888	888			2,090		2,090
Project # CK-2 PS-8 Upgrades	Yes									
Cost		85	178	759	758			1,780	200	1,980
Revenue: Sewer Revenue Bonds		85	178	759	758			1,780	200	1,980
Project # CK-3 PS-6 FM/So. Military Rd Pipe Replacement	Yes									
Cost		232	464	1,972	1,972			4,640		4,640
Revenue: Sewer Revenue Bonds		232	464	1,972	1,972			4,640		4,640
Project # CK-4 PS-8 Downstream Conveyance Improvements	Yes									
Cost		285	571	2,427	2,427			5,710		5,710
Revenue: Sewer Revenue Bonds		285	571	2,427	2,427			5,710		5,710
Silverdale Service Area										
Project # Silverdale-1 LS-1 Upgrades	Yes									
Cost:		99	198	842	841			1,980		1,980
Revenue: Sewer Revenue Bonds		99	198	842	841			1,980		1,980
Project # Silverdale-2 LS-3 Upgrades	Yes									
Cost:						188	376	564	3,196	3,760
Revenue: Sewer Revenue Bonds						188	376	564	3,196	3,760

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2013-2018 Total	2019-2025 Total	2013-2025 Total
Project # Silverdale-3 LS-4 Upgrades	Yes									
Cost:						485	970	1,455	8,245	9,700
Revenue: Sewer Revenue Bonds						485	970	1,455	8,245	9,700
Project # Silverdale-4 Silverdale Way Pipeline Replacement	Yes									
Cost:		92	183	778	777			1,830		1,830
Revenue: Sewer Revenue Bonds		92	183	778	777			1,830		1,830
Project # Silverdale-5 Bayshore Pipe Replacement	Yes									
Cost:		67	134	570	569			1,340		1,340
Revenue: Sewer Revenue Bonds		67	134	570	569			1,340		1,340
Project # Silverdale-6 Lower Anderson Hill Rd. to LS-3 Pipe Replacement	Yes									
Cost:				125	250	1,063	1,062	2,500		2,500
Revenue: Sewer Revenue Bonds				125	250	1,063	1,062	2,500		2,500
Central Kitsap Treatment Plant (CKTP)										
Project # CKTP-1 CKTP Reclamation/Reuse	Yes									
Cost:		3,900	17,550	17,550				39,000		39,000
Revenue: Sewer Revenue Bonds		3,900	17,550	17,550				39,000		39,000
Project # CKTP-2 CKTP Primary Sed. Tanks	Yes									
Cost:		1,575	1,575	6,300	6,300			15,750		15,750
Revenue: Sewer Revenue Bonds		1,575	1,575	6,300	6,300			15,750		15,750
Project #CKTP-3 CKTP Secondary Clarifiers	Yes									
Cost:						978	978	1,956	7,826	9,782
Revenue: Sewer Revenue Bonds						978	978	1,956	7,826	9,782

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2013-2018 Total	2019-2025 Total	2013-2025 Total
Keyport Service Area										
Project # Keyport-1 PS16/67 Upgrades	Yes									
Cost:			241	481	2,044	2,044		4,810		4,810
Revenue: Sewer Revenue Bonds			241	481	2,044	2,044		4,810		4,810
Kingston Service Area										
Project # Kingston-1 LS-41 Upgrade	Yes									
Cost		30	60	343	342			775		775
Revenue: Sewer Revenue Bonds		30	60	343	342			775		775
Project # Kingston-2 LS-71 Upgrade	Yes									
Cost		16	32	183	183			414		414
Revenue: Sewer Revenue Bonds		16	32	183	183			414		414
Project # Kingston-3 Flow Meter Vaults	Yes									
Cost				7	15	84	84	190		190
Revenue: Sewer Revenue Bonds				7	15	84	84	190		190
Project # Kingston-4 Miscellaneous Maintenance Projects	No									
Cost		45						45		45
Revenue: Sewer Revenue Bonds		45						45		45
Project # Kingston-5 LS-71 Pipe Replacement	Yes									
Cost:		2	3	19	19			43		43
Revenue: Sewer Revenue Bonds		2	3	19	19			43		43

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2013-2018 Total	2019-2025 Total	2013-2025 Total
Project # Kingston-10 WWTP Reclaimed Water	No									
Cost:		250	250					500		500
Revenue: Sewer Revenue Bonds		250	250					500		500
Suquamish Service Area										
Project # Suquamish 1 Prospect and Division Sewer Basin Improvements	Yes									
Cost:		2,000						2,000		2,000
Revenue: Sewer Revenue Bonds		2,000						2,000		2,000
Project # Suquamish-2 Park and Center Sewer Basin Improvements	Yes									
Cost:		150	1,347					1,497		1,497
Revenue: Sewer Revenue Bonds		150	1,347					1,497		1,497
Project # Suquamish-3 Harris and Angeline Sewer Basin Improvements	Yes									
Cost:				305				305		305
Revenue: Sewer Revenue Bonds				305				305		305
Projected Capital Facilities 2019-2025										
Central Kitsap Service Area										
Project # CK-5 LS-10 Upgrades	Yes									
Cost									2,340	2,340
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									2,340	2,340
Project # CK-6 LS-32 Upgrades	Yes									
Cost									2,340	2,340
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									2,340	2,340

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2013-2018 Total	2019-2025 Total	2013-2025 Total
Project # CK-7 LS-33 Upgrades	Yes									
Cost:									1,060	1,060
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									1,060	1,060
Project # CK-8 LS-34 Upgrades	Yes									
Cost									3,760	3,760
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									3,760	3,760
Project # CK-9 LS-36 Upgrades	Yes									
Cost:									1,060	1,060
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									1,060	1,060
Project # CK-10 LS-62 Upgrades	Yes									
Cost									1,060	1,060
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									1,060	1,060
Project # CK-11 LS-65 Upgrades	Yes									
Cost									2,340	2,340
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									2,340	2,340
Project # CK-12 LS-69 Upgrades	Yes									
Cost									2,340	2,340
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									2,340	2,340
Project # CK-13 No. Military Rd. Pipeline Replacement	Yes									
Cost									7,710	7,710

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2013-2018 Total	2019-2025 Total	2013-2025 Total
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									7,710	7,710
Project # CK-14 LS-18 Conveyance System Improvements	Yes									
Cost									1,310	1,310
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									1,310	1,310
Project # CK-15 LS-65 Forcemain Replacement	Yes									
Cost									3,500	3,500
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									3,500	3,500
Project # CK-16 LS-69 Forcemain & Gravity Sewer Replacement	Yes									
Cost									2,100	2,100
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									2,100	2,100
Project # CK-17 LS-32 Forcemain Replacement	Yes									
Cost:									600	600
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									600	600
Project # CK-18 LS-36 Forcemain Replacement	Yes									
Cost:									400	400

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2013-2018 Total	2019-2025 Total	2013-2025 Total
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									400	400
Project # CK-19 New Forcemains and Gravity Sewer	Yes									
Cost:									33,300	33,300
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									33,300	33,300
Project # CK-20 New Small & Medium Sized Pump Stations	Yes									
Cost:									16,185	16,185
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									16,185	16,185
Silverdale Service Area										
Project # Silverdale-7 LS-12 Upgrades	Yes									
Cost:									3,760	3,760
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									3,760	3,760
Project # Silverdale 8 LS-21 Upgrades	Yes									
Cost:									2,340	2,340
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									2,340	2,340
Project # Silverdale 9 LS-22 Upgrades	Yes									
Cost:									2,340	2,340

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2013-2018 Total	2019-2025 Total	2013-2025 Total
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									2,340	2,340
Project # Silverdale 10 Washington Ave. Pipe Replacement	Yes									
Cost:									1,000	1,000
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									1,000	1,000
Project # Silverdale 11 Silverdale Way to LS-1 Pipe Replacement	Yes									
Cost:									3,750	3,750
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									3,750	3,750
Project # Silverdale 12 Levin Road Pipe Replacement	Yes									
Cost:									1,700	1,700
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									1,700	1,700
Project # Silverdale 13 Provost Road Pipe Replacement	Yes									
Cost:									3,100	3,100
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									3,100	3,100
Project # Silverdale 14 LS-4 Forcemain Replacement	Yes									
Cost:									6,700	6,700

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2013-2018 Total	2019-2025 Total	2013-2025 Total
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									6,700	6,700
Project # Silverdale 15 Fredrickson Road NW Pipe Replacement	Yes									
Cost:									1,100	1,100
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									1,100	1,100
Project # Silverdale 16 Upper Anderson Hill Road Pipe Replacement	Yes									
Cost:									1,500	1,500
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									1,500	1,500
Project # Silverdale 17 LS-22 Forcemain Replacement	Yes									
Cost:									600	600
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									600	600
Project # Silverdale 18 New Small and Medium Sized Pump Stations	Yes									
Cost:									24,570	24,570
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									24,570	24,570
Project # Silverdale 19 New Forcemains and Gravity Sewers	Yes									
Cost:									46,800	46,800

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2013-2018 Total	2019-2025 Total	2013-2025 Total
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									46,800	46,800
Central Kitsap Treatment Plant										
Project # CKTP-4 Reclaimed Water Filters	Yes									
Cost:									21,439	21,439
Revenue: Sewer Revenue Bonds or Federal/State Grants or Loans									21,439	21,439
Project # CKTP-5 Existing Digester Improve.	Yes									
Cost:									23,311	23,311
Revenue: Sewer Revenue Bonds or Federal/State Grants or Loans									23,311	23,311
Project # CKTP-6 New Admin. Building	No									
Cost:									3,822	3,822
Revenue: Sewer Revenue Bonds or Federal/State Grants or Loans									3,822	3,822
Project # CKTP-7 Laboratory Expansion	No									
Cost:									2,504	2,504
Revenue: Sewer Revenue Bonds, or Federal/State Grants or Loans									2,504	2,504
Project # CKTP-8 Storage and Main Bldg.	No									
Cost									2,960	2,960
Revenue: Sewer Revenue Bonds or Federal/State Grants or Loans									2,960	2,960

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2013-2018 Total	2019-2025 Total	2013-2025 Total
Keyport Service Area										
Project # Keyport-2 Lemolo Pipeline Replacement	Yes									
Cost:									7,920	7,920
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									7,920	7,920
Kingston Service Area										
Project # Kingston-6 New Arborwood PS	Yes									
Cost									913	913
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									913	913
Project # Kingston-7 New Small Pump Stations	Yes									
Cost									3,213	3,213
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									3,213	3,213
Project # Kingston-8 New Force Mains	Yes									
Cost									3,657	3,657
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									3,657	3,657
Project # Kingston-9 New Gravity Collectors	Yes									
Cost:									14,116	14,116
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									14,116	14,116

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2013-2018 Total	2019-2025 Total	2013-2025 Total
Suquamish Service Area										
Project # Suquamish-4 Beach Sewer Main	Yes									
Cost:									1,729	1,729
Revenue: Sewer Revenue Bonds, LID, Developer Extension, or Federal/State Grants or Loans									1,729	1,729
Totals:		**8,933**	**22,995**	**33,548**	**17,386**	**4,842**	**3,470**	**91,174**	**285,716**	**376,890**

Source: Collection and conveyance estimates, BHC 2012; CKWWTP estimates, Brown and Caldwell, 2011; Suquamish estimates, RH2, 2012.

City of Bremerton

The City of Bremerton capital projects for the planning period including schedule, costs, and financing are shown in Exhibit 76. These projects are associated with providing sewer service to the West Bremerton, East Bremerton, and Gorst UGAs.

Exhibit 76
Sanitary Sewer – City of Bremerton Capital Facilities Projects and Financing 2013-2025 Preferred Land Use Plan (All Amounts in $1,000)

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2013-2018 Total	2019-2025 Total	2013-2025 Total
Six Year Capital Facility Improvements										
West Bremerton UGA - Rocky Point										
Project #1 – Morgan 8" Gravity	No									
Cost						384		384		384
Revenue: Utility Local Improvement District						384		384		384
Project #2– Phinney Bay 8" Gravity Sewer	No									
Cost						1,440		1,440		1,440
Revenue: Utility Local Improvement District						1,440		1,440		1,440
Project #3 – RP-3 8" Gravity Main	No									
Cost							1,280	1,280		1,280
Revenue: Utility Local Improvement District							1,280	1,280		1,280
West Bremerton UGA - West Hills										
Project #1 – Kean Street Trunk	Yes									
Cost							893	893		893
Revenue: Utility Local Improvement District							893	893		893
Project #2 – Price Road 8" Gravity Sewer 2300 LF	No									
Cost							736	736		736

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2013-2018 Total	2019-2025 Total	2013-2025 Total
Revenue: Utility Local Improvement District							736	736		736
East Bremerton UGA										
Project #1 – 18" Gravity Sewer on Perry Ave to Beach Sewer	No									
Cost							2,385	2,385		2,385
Revenue: Utility Local Improvement District							1,193	1,193		1,193
Revenue: Utility Reserves							1,192	1,192		1,192
Project #2 – 4" Force Main and Pump Station (TA-4) @ 150 gpm	No									
Cost						350		350		350
Revenue: Utility Local Improvement District						175		175		175
Revenue: Developer Extension						175		175		175
Projected Capital Facilities 2019-2025										
West Bremerton UGA - Rocky Point										
Project #4 – Pump Station OB-1	Yes									
Cost									1,500	1,500
Revenue: Utility Local Improvement District									1,500	1,500
Project #5 – Bertha 8" Gravity	No									
Cost									864	864
Revenue: Utility Local Improvement District									864	864
Project #6 – Kitsap Way 15" Gravity Sewer	Yes									
Cost									1,200	1,200
Revenue: Utility Local Improvement District									1,200	1,200

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2013-2018 Total	2019-2025 Total	2013-2025 Total
Project #7 – Kelly Road 12" Gravity	No									
Cost									360	360
Revenue: Utility Local Improvement District									360	360
Project #8 – Pump Station MD-2	No									
Cost									2,200	2,200
Revenue: Utility Local Improvement District									2,200	2,200
Project #9 – Pump Station MD-3	No									
Cost									1,200	1,200
Revenue: Utility Local Improvement District									1,200	1,200
Project #10 – MD-3 10” Force Main	No									
Cost									980	980
Revenue: Utility Local Improvement District									980	980
Project #11 - RP-1 12” Gravity	No									
Cost									684	684
Revenue: Utility Local Improvement District									684	684
Project #12- RP-1 10” Gravity	No									
Cost									1,015	1,015
Revenue: Utility Local Improvement District									1,015	1,015
West Bremerton UGA - West Hills										
Project #3 – WWTP Gravity Pressure Sewer	Yes									
Cost									259	259
Revenue: Utility Local Improvement District									259	259

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2013-2018 Total	2019-2025 Total	2013-2025 Total
Project #4 – Bayview Drive Trunk Sewer	Yes									
Cost									288	288
Revenue: Utility Local Improvement District									288	288
Project #5 – Harlow Drive 21" Gravity	No									
Cost									265	265
Revenue: Utility Local Improvement District									265	265
Project #6 – Sunnyhill Road 8" Gravity	No									
Cost									736	736
Revenue: Utility Local Improvement District									736	736
Project #7 – Ida Street 8" Gravity	No									
Cost									544	544
Revenue									544	544
Project #8 – Broad Street 8" gravity	No									
Cost									544	544
Revenue									544	544
West Bremerton UGA – SR 304										
Project #1 – West Sherman Heights Road	No									
Cost									1,728	1,728
Revenue									1,728	1,728
Project #2 – Kent/Viking 8" Gravity	No									
Cost									1,216	1,216
Revenue									1,216	1,216

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2013-2018 Total	2019-2025 Total	2013-2025 Total
Gorst UGA										
Project #1 – Pump Station SB 3 (Gorst) Upgrade	Yes									
Cost									100	100
Revenue: Utility Local Improvement District									100	100
East Bremerton UGA										
Project #1 – 8" Gravity Sewer on Forest Drive	No									
Cost									800	800
Revenue: Utility Local Improvement District									400	400
Revenue: Grant/Loan									400	400
Project #2- 6" Force Main and Pump Station (TA-1) at 350 gpm	No									
Cost									734	734
Revenue: Utility Local Improvement District									367	367
Revenue: Grant/Loan									367	367
Project #3 – 10" Gravity Sewer on Sylvan Way	No									
Cost									1,050	1,050
Revenue: Utility Local Improvement District									1,050	1.050
Project #4 – 12" Gravity Sewer on Trenton Ave	No									
Cost									1,296	1,296
Revenue: Utility Local Improvement District									1,296	1,296
Project #5 – 10" Force Main and Pump Station (TA-3) at 1500 gpm	No									
Cost									1,920	1,920
Revenue: Utility Local Improvement District									1,920	1,920

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2013-2018 Total	2019-2025 Total	2013-2025 Total
Project #6 – 8" Gravity Sewer on Sylvan and Ridgeview	No									
Cost									1,152	1,152
Revenue: Utility Local Improvement District									576	576
Revenue: Developer Extension									576	576
Project #7 – 4" Force Main and Pump Station (TA-2) @ 160 gpm	No									
Cost									592	592
Revenue: Utility Local Improvement District									296	296
Revenue: Developer Extension									296	296
Project #8 – Tracyton 6" Force Main and Pump Station (TB-1) @350 gpm	No									
Cost									828	828
Revenue: Utility Local Improvement District									414	414
Revenue: Grant/Loan									414	414
Project #9 – Tracyton 12" Gravity Sewer	No									
Cost									1,836	1,836
Revenue: Utility Local Improvement District									918	918
Revenue: Grant/Loan									918	918
Project #10 – Tracyton 10" Force Main and Pump Station (TB-2) @1500 gpm	No									
Cost									3,705	3,705
Revenue: Utility Local Improvement District									1,853	1,853
Revenue: Grant/Loan									1,852	1,852
Totals:		0	0	0	0	2,174	5,294	7,468	29,596	37,064

Source: City of Bremerton, 2012

City of Port Orchard

Capital projects for the City of Port Orchard sewer system are associated with expanding conveyance capacity within the existing system, and constructing new collection facilities to serve portions of the Port Orchard UGA that are within the city's sewer service area. Capital project information is shown in Exhibit 77 and is based on information contained in the City of Port Orchard Comprehensive Sanitary Sewer Plan Update (2010). Sanitary sewer capital projects in the Port Orchard UGA reflect information within the Comprehensive Sanitary Sewer Plan Update, including annexations that have occurred since 2006. The projected costs for the sewer projects total approximately $12,930,000.

Exhibit 77
Sanitary Sewer – City of Port Orchard Capital Facilities Projects and Financing 2013-2025
(All Amounts in $1,000)

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2013-2018 Total	2019-2025	2013-2025 Total
Project #1 – Bay St. Pump Station Capacity Increase	Yes									
Cost		1,300						1,300		1,300
Revenue - Sewer Utility		1,300						1,300		1,300
Project #2 – Tremont Trunk "H" Capacity Increase	Yes									
Cost		650						650		650
Revenue - Sewer Utility		650						650		650
Project #3 – Marina Pump Station Capacity Increase	Yes									
Cost			2,100					2,100		2,100
Revenue - Sewer Utility			2,100					2,100		2,100
Project #4 – McCormick Pump Station and Trunk Capacity Increase	Yes									
Cost		150	960	500				1,610		1,610
Revenue - Sewer Utility		150	960	500				1,610		1,610
Project #5 – Sidney-Sedgwick Pump Station and Trunk Capacity Increase	Yes									
Cost					20			20	1,000	1,020
Revenue - Sewer Utility					20			20	1,000	1,020
Project #6 – Pottery Pump Station and Trunk Capacity Increase	Yes									
Cost									2,100	2,100
Revenue - Sewer Utility									2,100	2,100
Project #7 – Cook Road Collection and Conveyance	No									
Cost							1,400	1,400		1,400
Revenue – Developer Extension							1,400	1,400		1,400

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2013-2018 Total	2019-2025	2013-2025 Total
Project #8 – Glenwood Road Collection and Conveyance	No									
Cost							1,100	1,100		1,100
Revenue – Developer Extension							1,100	1,100		1,100
Project #9 – Cedar Heights Collection System	No									
Cost									450	450
Revenue – Developer Extension									450	450
Project #10 – Bay St. Conveyance Capacity	Yes									
Cost									1,200	1,200
Revenue - Sewer Utility									1,200	1,200
Total:		2,100	3,060	500	20	0	2,500	8,180	4,750	12,930

Source: 2010 City of Port Orchard Comprehensive Sanitary Sewer Plan Update

Note: CIP schedule and revenue sources estimated from City of Port Orchard Comprehensive Sanitary Sewer Plan (2010). For all studied alternatives, sanitary sewer capital projects in the Port Orchard UGA reflect information within the Comprehensive Sanitary Sewer Plan Update, including annexations that have occurred since 2006.

City of Poulsbo

The City of Poulsbo plans seven capital sewer projects through the year 2015, at an estimated cost of $1,599,000. The proposed schedule, costs, and financing plan is shown in Exhibit 78.

Exhibit 78
Sanitary Sewer – City of Poulsbo Capital Facilities Projects and Financing 2012-2025
(All Amounts in $1,000)

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2013-2018 Total	2019-2025	2013-2025 Total
Project #1 - Annual Inflow Reduction Program	Yes									
Cost		20	20	20				60		60
Revenue: Sewer Reserves		20	20	20				60		60
Project #2- 6th & 9th Avenue Pump Station	Yes									
Cost		900						900		900
Revenue: Sewer Reserves		900						900		900
Project #3 - Tollefson Forcemain Upgrade	Yes									
Cost		50						50		50
Revenue: Sewer Reserves		50						50		50

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2013-2018 Total	2019-2025	2013-2025 Total
Project #4 - Poulsbo Village Pump Station Upgrade	No									
Cost		81						81		81
Revenue: Sewer Reserves		81						81		81
Project #5 - Harrison Forcemain Replacement	No									
Cost		340						340		340
Revenue: Sewer Reserves		340						340		340
Project #6 - Replace Johnson Pipe	No									
Cost			58					58		58
Revenue: Sewer Reserves			58					58		58
Project #7 - I&I Effectiveness & Downstream Capacity Project	No									
Cost				110				110		110
Revenue: Federal Grants				110				110		110
Total:		1,391	78	130	0	0	0	1,599	0	1,599

Source: City of Poulsbo 2011

West Sound Utility District

West Sound Utility District capital sewer projects for the Preferred Land Use Plan including schedule, costs, and financing plan are shown in Exhibit 79.

Capital projects were developed through a process of updating the District's 2007 Technical Addendum to the Karcher Creek Comprehensive Plan using new proposed preferred land use boundary alternatives and associated population projections.

Exhibit 79

Sanitary Sewer – Port Orchard UGA – West Sound Utility District Capital Facilities Projects and Financing 2012-2025 Preferred Land Use Plan (All Amounts in $1,000)

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2013-2018 Total	2019-2025 Total	2013-2025 Total
Project #1 – Sector 1 Collection and Conveyance (Lidstrom Rd.)	Yes									
Cost							950	950		950
Revenue: Developer Extension/ULID							950	950		950
Project #2 - Sector 3 Collection and Conveyance (Collins Rd.)	No									
Cost									3,100	3,100
Revenue: Developer Extension/ULID									3,100	3,100
Project #3 – Sector 4 Mile Hill Force Main	No									
Cost									475	475
Revenue: Developer Extension/ULID									475	475
Project #4 – Sector 7 Collection and Conveyance (Converse Ave)	Yes									
Cost									977	977
Revenue: Developer Extension/ULID									977	977
Project #5 – Sector 8 Collection and Conveyance (Brasch Rd.)	No									
Cost									151	151
Revenue: Developer Extension/ULID									151	151
Project #6 – Sector 9 Collection and Conveyance (Bethel Rd.)	No									

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2013-2018 Total	2019-2025 Total	2013-2025 Total
Cost									662	662
Revenue: Developer Extension/ULID									662	662
Project #7 – Sector 3 Collection and Conveyance (Horstman Rd.)	No									
Cost									620	620
Revenue: Developer Extension/ULID									620	620
Project #8 – Sector 5 Collection and Conveyance (Aiken Rd.)	No									
Cost									882	882
Revenue: Developer Extension/ULID									882	882
Project #9 – Sector 8 Collection and Conveyance (Brasch Rd)	No									
Cost									731	731
Revenue: Developer Extension/ULID									731	731
Project #10 – Sector 9 Collection and Conveyance (Bethel Rd)	No									
Cost									2,016	2,016
Revenue: Developer Extension/ULID									2,016	2,016
Project #11 - Sector 10 Collection and Conveyance (Bielmeier Rd. North)	No									
Cost									567	567
Revenue: Developer Extension/ULID									567	567

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2013-2018 Total	2019-2025 Total	2013-2025 Total
Project #12 – Sector 13 Collection and Conveyance (Phillips Rd.)	No									
Cost									1,500	1,500
Revenue: Developer Extension/ULID									1,500	1,500
Totals:		0	0	0	0	0	950	950	11,681	12,631

Note: CIP schedule and revenue sources estimated from 2007 Technical Addendum to Karcher Creek Comprehensive Sewer Plan.

5.6 Schools

Overview

The purpose of the schools section of the CFP is to ensure that adequate educational facilities will be available to serve the increasing population in Kitsap County. This section evaluates the four school districts that serve unincorporated Kitsap County: North Kitsap (NKSD), Central Kitsap (CKSD), South Kitsap (SKSD), and Bremerton (BSD). Two districts were excluded: Bainbridge Island Schools because the entire district is located in the City of Bainbridge Island, and the North Mason School District because it does not have schools or facilities located in Kitsap County and serves only a very small area in the southwestern corner of the County.

Inventory of Current Facilities

The inventories and analyses of capacity requirements are presented two ways: with interim (i.e., portable) facilities and without interim facilities. The districts' capital improvement projects are based on the capacity without portables because they have significant limitations in such areas as heating, ventilation, noise, security, restrooms, storage cupboards, and intercom communications. For these reasons, portables are not considered permanent capacity either by the state or by the districts. The capacity of portable rooms is presented to show the interim facilities the districts use (1) to meet short-term enrollment fluctuations, or (2) to serve as temporary facilities until permanent facilities are built.

Capacity figures are generally based on teacher-to-student ratios (expressed as students per classroom) that the school district determines to be most appropriate to accomplish its educational program. These ratios are often contained in employment agreements between districts and their teachers.

Inventories of the school districts' existing facilities located in Kitsap County are presented in this section. The inventories are summarized in Exhibit 80 through Exhibit 83. A map of district boundaries and facilities is included in Appendix A.

North Kitsap School District (NKSD)

NKSD is located at the north end of the Kitsap Peninsula and is almost completely surrounded by water. To the west, the district is bordered by Hood Canal and includes the Port Gamble Inlet. To the north and east, Puget Sound borders the district. Port Madison and Liberty Bay surround the district on its southernmost borders. NKSD schools are generally clustered around the City of Poulsbo and the unincorporated community of Kingston. The district currently uses the following grade level configurations: K–5 housed in elementary schools, 6-8 housed in middle schools, and 9-12 housed in senior high schools.

Exhibit 80 lists currently open North Kitsap Schools and their enrollment capacity. The District has voted to close one school for the 2013-14 school year, which would reduce its enrollment capacity. The decision of which school to close will not be final until February of 2013, at which time the District should reassess its capital facility needs.

Exhibit 80
North Kitsap School District Current Enrollment Capacity

School	Current Enrollment Capacity
Elementary Schools (K-5)	
Breidablik	429
Gordon	380
Pearson	299
Poulsbo	398
Suquamish	380

School	Current Enrollment Capacity
Vinland	485
Wolfle	467
Total Elementary Permanent Facilities	**2,838**
Total Elementary Interim (Portables) Facilities	**1,200**
Total Elementary Permanent and Interim Facilities	**4,038**
Middle Schools (6-8)	
Kingston	835
Poulsbo	675
Total Middle School Permanent Facilities	**1,510**
Total Middle School Interim (Portables) Facilities	**525**
Total Middle School Permanent and Interim Facilities	**2,035**
Senior High Schools (9-12)	
North Kitsap	1,200
Kingston	859
Spectrum	110
Total Senior High Permanent Facilities	**2,169**
Total Senior High Interim (Portables) Facilities	**250**
Total Senior High Permanent and Interim Facilities	**2,419**

Source: North Kitsap School District, 2012; and BERK, 2012.

Central Kitsap School District

Central Kitsap School District is located on the Kitsap Peninsula, surrounding Dyes Inlet and extending west to the Hood Canal. Currently, there are twelve elementary schools, three junior high schools, one 7–12 secondary school, and two senior high schools in the District. The district also provides alternative junior high and high school programs. The grade configuration is based on grades K–6, elementary; grades 7–9, junior high; and 10–12, senior high school. Exhibit 81 presents the schools of Central Kitsap and their enrollment capacity.

Exhibit 81
Central Kitsap School District Current Enrollment Capacity

School	Current Enrollment Capacity
Elementary Schools (K–6)	
Brownsville	408
Clear Creek	480
Cottonwood	384
Cougar Valley	480
Emerald Heights	528
Esquire Hills	432
Green Mountain	432

School	Current Enrollment Capacity
Jackson Park	480
Pinecrest	504
Silverdale	432
Silver Ridge	432
Woodlands	432
Total Elementary Permanent Facilities	**5,496**
Total Elementary Interim (Portables) Facilities	**456**
Total Elementary Permanent and Interim Facilities	**5,952**
Junior High Schools (7–9)	
Central Kitsap	875
Fairview	750
Ridgetop	1,025
Total Junior High Permanent Facilities	**2,650**
Total Junior High Interim (Portables) Facilities	**325**
Total Junior High Permanent and Interim Facilities	**2,975**
Senior High Schools (10–12)	
Central Kitsap	1,200
Olympic	1,050
Klahowya (7-12)	725
Total Senior High Permanent Facilities	**2,975**
Total Senior High Interim (Portables) Facilities	**850**
Total Senior High Permanent and Interim Facilities	**3,825**

Source: Central Kitsap School District, 2012; and BERK, 2012.

South Kitsap School District (SKSD)

South Kitsap School District (SKSD) is located in the southern portion of Kitsap County. Pierce County and Mason County border the District to the south and west. To the north and east, the District is bordered by the Sinclair Inlet, Rich Passage, Colvos Passage, and Puget Sound. The district includes 10 elementary schools, three junior high schools, and one alternative and one comprehensive high school. The majority of the schools are located throughout the southern portion of unincorporated Kitsap County, while South Kitsap High School, Cedar Heights Junior High School, and Sidney Glen Elementary School are located within the Port Orchard city limits. The grade configuration is based on grades K–6, elementary; grades 7–9, junior high; and grades 10–12, senior high school. Exhibit 82 lists the schools of the South Kitsap School District and their enrollment capacity.

Exhibit 82
South Kitsap School District Current Enrollment Capacity

School	Current Enrollment Capacity
Elementary Schools (K–6)	
Burley-Glenwood	528
East Port Orchard	467
Hidden Creek	526
Manchester	441
Mullenix Ridge	480
Olalla	408
Orchard Heights	729
Sidney Glen	467
South Colby	216
Sunnyslope	417
Total Elementary Permanent Facilities	**4,679**
Total Elementary Interim (Portables) Facilities	**1,008**
Explorer Alternative Program – Interim (Portable) Facilities	**48**
Total Elementary Permanent and Interim Facilities	**5,735**
Junior High Schools (7–9)	
Cedar Heights	605
John Sedgwick	839
Marcus Whitman	796
Total Junior High Permanent Facilities	**2,240**
Total Junior High – Interim (Portable) Facilities	**443**
Explorer Alternative Program – Interim (Portable) Facilities	**26**
Total Junior High Permanent and Interim Facilities	**2,709**
Senior High Schools (10–12)	
South Kitsap	1,972
Alternative	174
Total Senior High Permanent Facilities	**2,146**
Total Senior High Interim (Portables) Facilities	**218**
Explorer Alternative Program – Interim (Portable) Facilities	**26**
Total Senior High Permanent and Interim Facilities	**2,390**

Source: South Kitsap School District, 2012; and BERK, 2012.

Bremerton School District (BSD)

BSD is located on the Kitsap Peninsula between Port Orchard Bay, Dyes Inlet, and Sinclair Inlet. The district is adjacent to the Puget Sound Naval Shipyard, and its enrollment is directly related to the military base. The school district serves the City of Bremerton and unincorporated areas adjacent to the city.

BSD comprises six elementary schools, one middle school, one traditional high school, and one alternative high school. The district also administers a vocational skills center that serves other school districts. The current grade configuration in the district is based on grades K–5, elementary; grades 6–8, middle school; and grades 9–12, high school. Exhibit 83 lists the schools of Bremerton School District and their enrollment capacity.

Exhibit 83
Bremerton School District Current Enrollment Capacity

School	Current Enrollment Capacity
Elementary Schools (K–5)	
Amin Jahr	481
Crown Hill	528
Kitsap Lake	528
Naval	484
View Ridge	528
West Hills	528
Total Elementary Permanent Facilities	**3,077**
Total Elementary Interim (Portables) Facilities	**840**
Total Elementary Permanent and Interim Facilities	**3,917**
Middle Schools (6-8)	
Mountain View Middle School	1,175
Total Middle School Permanent Facilities	**1,175**
Total Middle School Interim (Portables) Facilities	**120**
Total Middle School Permanent and Interim Facilities	**1,295**
Senior High Schools (9–12)	
Bremerton	1,671
Total Senior High Permanent Facilities	**1,671**
Total Senior High Interim (Portables) Facilities	**120**
Renaissance Alternative High School Interim (Portables) Facilities	**136**
Total Senior High Permanent and Interim Facilities	**1,927**

Source: Bremerton School District, 2012; and BERK, 2012.

Level of Service Capacity Analysis

An LOS capacity analysis was applied to each County school district based on a student to household ratio that was developed by comparing Office of Superintendent of Public Instruction enrollment numbers to estimates of households by school district. The results, expressed in the number of students a school is able to accommodate based on the enrollment capacity inventories above are shown in Exhibit 84 through Exhibit 87 below. Where numbers are shown as positive, a school district is projected to have a net reserve of school capacity in terms of

the number of students it can accommodate. Where numbers are shown in the negative, a school district is projected to have a deficit of school capacity in terms of the number of students it can accommodate.

The analysis in this CFP is conservative by assuming that total growth estimated in 2018 and 2025 occurs in a "lump". However, depending on the timing of the development in the planning period through 2018 and 2025 and the total amount of growth, districts with strained capacity may need to split attendance boundaries, add portables, or ultimately develop new schools.

Enrollment Projections. Enrollment data is measured by the Washington State Office of the Superintendent of Public Instruction (OSPI). They conduct semi-annual student counts in October and May of each school year. The current enrollment levels presented in this section reflect the October 2010 student count for each district.

Future enrollment projections are complex, and there are many possible approaches for estimating student growth. This analysis strives to provide a consistent planning effort across all four districts by using the same base data for all districts (OSPI's student count and OFM's small area estimates of occupied housing units based on the 2010 US Census) and a standard land capacity methodology to project households by district for 2018 and 2025. It is recognized that the CFP estimates are conservative, and that the Districts have a refined approach for determining future enrollment and space needs, which they revisit, generally every six years.

This CFP analysis bases future enrollment levels on a student-per-household ratio using the number of households projected from the land capacity analysis described in Chapter 3.0. The net change in household growth was added to the 2010 base household number from OFM's small area estimates. The student-per-household ratios were developed as follows:

- Two of the districts, SKSD and NKSD, developed their own student generation rates for use in their capital facility plans. These estimates were incorporated into this analysis and applied to the projected growth in households, separating out multi-family (MF) and single-family (SF) dwelling unit growth. Estimates of future enrollment may still differ from those used in these districts' CFPs since the projected growth in households is different from those based on this land capacity analysis.
- For BSD and CKSD, which did not include their own student-per-household generation assumptions in their adopted CFPs, this analysis assumes that the current student-per-household ratio in the district will continue going forward.

South Kitsap School District (SKSD)

SKSD is currently meeting its LOS standard through the use of portables, which give it a total available capacity greater than current enrollment. It is not meeting its standard through permanent facilities alone.

In its CFP, SKSD has its own student generation rates based on the demographics within the district. The district uses the student generation rates to project future enrollment based on anticipated housing unit growth. Generation rates for SKSD are 0.52 students per single-family dwelling unit and 0.32 units per multifamily dwelling unit (SKSD 2011 CFP). As noted above, enrollment projections may differ from those included in the district's plans due to the standard land capacity methodology used in this analysis. Exhibit 84 shows estimated level of service under the Preferred Land Use Plan.

If growth in households occurs as predicted with the land capacity analysis within the District through 2018 or 2025, the District would need to increase capacity to continue to meets its LOS standard going forward.

Exhibit 84
South Kitsap School District Preferred Land Use Plan Level of Service Analysis: Student Capacity[1]

Time Period	Student per Household Ratio	House-holds	Enroll-ment[2]	Perm. Capacity	Net Reserve or (Deficit)	Total. Capacity[1]	Net Reserve or (Deficit)
2010	0.39	25,727	9,910	9,065	(845)	10,834	924
Additional Planned Capacity Through 2018				0		100	
2018	0.52 per MF HH 0.32 per SF HH	30,617	12,382	9,065	(3,317)	10,934	(1,448)
Additional Planned Capacity Through 2025				1,800		1,800	
2025	0.52 per MF HH 0.32 per SF HH	35,653	14,927	10,865	(4,062)	12,734	(2,193)

1 LOS analysis compares the student capacity of school districts to projected enrollment. Where information is available, it includes portable facilities.

2 October 2010 Student Count

Source: OSPI, 2010; OFM, 2010; BERK, 2012.

North Kitsap School District

NKSD is currently meeting its LOS standard through the use of portables facilities – its permanent facility capacity is currently about 144 students less than its current enrollment. With an increase in households expected over the planning period, the District is expected to continue to meet its LOS standard if portables are included in the facility capacity. As noted above in the capacity section, NKSD is planning to close one elementary school by the 2013-14 school year. This closure is not reflected in the tables below since a specific school has not been selected, but will reduce district capacity once it occurs.

In its CFP, NKSD has its own student generation rates based on the demographics within the district. The district uses the student generation rates to project future enrollment based on anticipated housing unit growth. Generation rates for NKSD are 0.52 students per single-family dwelling unit and 0.36 units per multifamily dwelling unit (NKSD 2009 CFP). As noted above, enrollment projections may differ from those included in the district's plans due to the standard land capacity methodology used in this analysis. Exhibit 85 shows estimated level of service under the Preferred Land Use Plan.

With an increase in households expected over the planning period, the District is expected to continue to meet its LOS standard if portables are included in the facility capacity through 2018, but to have a deficit by 2025 with or without the interim facilities. There are not currently any capital projects planned that would address this long-term deficit.

Exhibit 85
North Kitsap School District Preferred Land Use Plan Level of Service Analysis: Student Capacity[1]

Time Period	Student per Household Ratio	House-holds	Enroll-ment[2]	Perm. Capacity	Net Reserve or (Deficit)	Total. Capacity[1]	Net Reserve or (Deficit)
2010	0.36	18,387	6,661	6,517	(144)	8,492	1,831
Additional Planned Capacity Through 2018				0		0	
2018	0.52 per MF HH 0.36 per SF HH	20,756	7,860	6,517	(1,343)	8,492	632
Additional Planned Capacity Through 2025				0		0	
2025	0.52 per MF HH 0.36 per SF HH	23,077	9,035	6,517	(2,518)	8,492	(543)

1 LOS analysis compares the student capacity of school districts to projected enrollment. Where information is available, it includes portable facilities.

2 October 2010 Student Count from OSPI

Source: OSPI, 2010; OFM, 2010; BERK, 2012.

Central Kitsap School District

CKSD is currently housing all of its students through the use of interim facilities; it has a net deficiency of about 450 students compared to its permanent capacity alone. With expected enrollment growth within the district, CKSD is projected to have a deficit by 2018, even with the addition of both permanent and portable capacity. The District has three capacity projects planned for the 2013-2025 period, which will increase permanent capacity by about 416 students and total capacity by about 340 students.

Exhibit 86
Central Kitsap School District Preferred Land Use Plan Level of Service Analysis: Student Capacity[1]

Time Period	Student per Household Ratio	House-holds	Enroll-ment[2]	Perm. Capacity	Net Reserve or (Deficit)	Total. Capacity[1]	Net Reserve or (Deficit)
2010	0.46	25,224	11,568	11,121	(447)	12,752	1,184
Additional Planned Capacity Through 2018				145		194	
2018	0.46	29,009	13,304	11,266	(2,038)	12,946	(358)
Additional Planned Capacity Through 2025				271		146	
2025	0.46	32,784	15,035	11,537	(3,498)	13,092	(1,943)

1 LOS analysis compares the student capacity of school districts to projected enrollment. Where information is available, it includes portable facilities.

2 October 2010 Student Count from OSPI

Source: OSPI, 2010; OFM, 2010; BERK, 2012.

Bremerton School District

BSD is currently meeting its LOS standard using its permanent facilities. Although it has planned permanent capacity increases, it will still see a deficit by 2018 due to estimated enrollment growth. However, the District has adequate portables facilities that allow its total capacity to handle total enrollment under the preferred land use plan.

Exhibit 87
Bremerton School District Preferred Land Use Plan Level of Service Analysis: Student Capacity

Time Period	Student per Household Ratio	House-holds	Enroll-ment[2]	Perm. Capacity	Net Reserve or (Deficit)	Total. Capacity[1]	Net Reserve or (Deficit)
2010	0.28	18,269	5,175	5,923	748	7,139	1,964
Additional Planned Capacity Through 2018				180		180	
2018	0.28	21,800	6,175	6,103	(72)	7,319	1,144
Additional Planned Capacity Through 2025				50		50	
2025	0.28	25,445	7,208	6,153	(1,055)	7,369	161

1 LOS analysis compares the student capacity of school districts to projected enrollment. Where information is available, it includes portable facilities.

2 October 2010 Student Count from OSPI

Source: OSPI, 2010; OFM, 2010; BERK, 2012.

Capital Projects and Funding

North Kitsap School District

NKSD's capital facilities plan includes five non-capacity renovation projects for a total project cost of $40.5 million. The District plans to pay for these projects using about 67% bond revenue, 30% state funding assistance, and 3% impact fee revenues. No projects are planned to begin until 2018.

Exhibit 88
North Kitsap School District Capital Facilities Projects and Financing 2013-2025 (All Amounts in $1,000)

Project and Cost/Revenue (thousands $)	2013	2014	2015	2016	2017	2018	2019-2025	Total
Non-Capacity Projects								
Renovation of Breidablik Elementary								
Cost						2,750	2,750	5,500
Revenue: Bond, State Match, and Impact Fees						2,750	2,750	5,500
Renovation of Wolfle Elementary								
Cost							5,000	5,000
Revenue: Bond, State Match, and Impact Fees							5,000	5,000
Renovation of Building One: Kingston Middle School								
Cost							14,500	14,500
Revenue: Bond, State Match, and Impact Fees							14,500	14,500
Renovation of Building Two: Poulsbo Middle School								
Cost							8,000	8,000
Revenue: Bond, State Match, and Impact Fees							8,000	8,000
Renovation of Voc Tech Building at North Kitsap HS								
Cost							7,500	7,500
Revenue: Bond, State Match, and Impact Fees							7,500	7,500

Project and Cost/Revenue (thousands $)	2013	2014	2015	2016	2017	2018	2019-2025	Total
Cost and Revenue Summary								
Capacity Projects	-	-	-	-	-	-	-	-
Non-Capacity Projects	-	-	-	-	-	2,750	37,750	40,500
Total Costs	**0**	**0**	**0**	**0**	**0**	**2,750**	**37,750**	**40,500**
Bond	-	-	-	-	-	1,843	25,293	27,135
State Match	-	-	-	-	-	825	11,325	12,150
Impact Fees	-	-	-	-	-	83	1,133	1,215
Total Revenues	**0**	**0**	**0**	**0**	**0**	**2,750**	**37,750**	**40,500**

Source: North Kitsap School District, 2012; and BERK, 2012.

Central Kitsap School District

CKSD's capital facilities plan includes three capacity projects at a total cost of $140.6 million and multiple non-capacity projects for a total cost of $43.4 million. The district plans to fund these projects through a capital projects levy, grants, federal heavy impact funds, and state matching funds. The financing plan is shown in Exhibit 89.

Exhibit 89
Central Kitsap School District Capital Facilities Projects and Financing 2013-2025
(All Amounts in $1,000)

Project and Cost/Revenue (thousands $)	2013	2014	2015	2016	2017	2018	2019-2025	Total
Capacity Projects								
Jackson Park Elementary Replacement								
Cost	4,854	15,079	1,260					21,193
Rev: Capital Projects Levy	4,854	9,895						14,749
Rev: Federal Heavy Impact Funds			1,260					1,260
Rev: OSPI Matching		5,184						5,184
Central Kitsap Junior High Replacement								
Cost			915				56,935	57,850
Rev: Capital Projects Levy			915				45,447	46,362
Rev: OSPI Matching							11,488	11,488
Fairview Junior High Modernization or Replacement								
Cost							61,620	61,620
Rev: Capital Projects Levy							50,265	50,265
Rev: OSPI Matching							11,355	11,355
Non-Capacity Projects								
Transportation/Warehouse/Food Service Consolidation								
Cost				888	4,831			5,719
Rev: Capital Projects Levy				389	1,811			2,200
Rev: OSPI Matching					863			863
Rev: Federal Heavy Impact				500	2,157			2,656

Project and Cost/Revenue (thousands $)	2013	2014	2015	2016	2017	2018	2019-2025	Total
Funds								
Silverdale Elementary Renovation								
Cost		471	1,830	8,536	863			11,700
Rev: Capital Projects Levy		471	802	1,4428	863			3,564
Rev: Federal Heavy Impact Funds			1,028	888				1,917
Rev: OSPI Matching				6,219				6,219
Cottonwood Elementary Miscellaneous Repairs								
Cost	8			66				75
Rev: Capital Projects Levy				66				66
Rev: Federal Heavy Impact Funds	8							8
Emerald Heights Elementary Miscellaneous Repairs								
Cost	93	240						334
Rev: Capital Projects Levy		240						240
Rev: OSPI Matching	39							39
Rev: Federal Heavy Impact Funds	54							54
Fairview Junior High Miscellaneous Repairs								
Cost	1,124							1,124
Rev: Federal Heavy Impact Funds	1,124							1,124
Support Facilities Special Services: ADA Repairs								
Cost	5							5
Rev: Federal Heavy Impact Funds	5							5
Miscellaneous Repairs and Upgrades								
Cost	4,149	3,100	3,073	4,596	779			15,698
Rev: Grants	291							291
Rev: Capital Projects Levy	1,400	3,100	3,073	4,596	779			12,949
Rev: Federal Heavy Impact Funds	2,457							2,457
Brownsville Elementary Miscellaneous Repairs								
Cost		743		398				1,141
Rev: Capital Projects Levy		743		398				1,141
Clear Creek Elementary Miscellaneous Repairs								
Cost		689						689
Rev: Capital Projects Levy		689						689
Central Kitsap High HVAC Repairs								
Cost		881						881
Rev: Capital Projects Levy		881						881

Project and Cost/Revenue (thousands $)	2013	2014	2015	2016	2017	2018	2019-2025	Total
West Alternative High Electrical System Repairs								
Cost		16						16
Rev: Capital Projects Levy		16						16
Silverdale Stadium Turf Replacement and Other Upgrades								
Cost		709		91				800
Rev: Federal Heavy Impact Funds				91				91
Rev: Capital Projects Levy		709						709
Cougar Valley Elementary Miscellaneous Repairs								
Cost			471					471
Rev: Capital Projects Levy			471					471
Green Mountain Elementary Miscellaneous Repairs								
Cost			270					270
Rev: Capital Projects Levy			270					270
Ridgetop Junior High Miscellaneous Repairs								
Cost			1,216	292				1,508
Rev: Capital Projects Levy			1,216	292				1,508
Esquire Hills Elementary Miscellaneous Repairs								
Cost				2				2
Rev: Capital Projects Levy				2				2
Pine Crest Elementary Miscellaneous Repairs								
Cost				108				108
Rev: Capital Projects Levy				108				108
Woodlands Elementary Miscellaneous Repairs								
Cost				444				444
Rev: Federal Heavy Impact Funds				444				444
Klahowya Secondary Miscellaneous Repairs								
Cost				321				321
Rev: Capital Projects Levy				321				321
Olympic High Miscellaneous Repairs								
Cost				745				745
Rev: Capital Projects Levy				447				447
Rev: Federal Heavy Impact Funds				298				298
Silver Ridge Elementary Miscellaneous Repairs								
Cost					529			529
Rev: Capital Projects Levy					529			529
Maintenance Facilities Miscellaneous Repairs								
Cost					835			835

Project and Cost/Revenue (thousands $)	2013	2014	2015	2016	2017	2018	2019-2025	Total
Rev: Capital Projects Levy					835			835
Cost and Revenue Summary								
Capacity Projects	4,854	15,079	2,175	-	-	-	118,555	140,663
Non-Capacity Projects	5,380	6,850	6,861	16,488	7,836	-	-	43,415
Total Costs	**10,234**	**21,929**	**9,036**	**16,488**	**7,836**	**0**	**118,555**	**184,078**
Capital Projects Levy	6,254	16,745	6,748	8,048	4,817	-	95,712	138,323
Federal Heavy Impact Funds	3,650	-	2,288	2,221	2,157	-	-	10,315
OSPI Matching	39	5,184	-	6,219	863	-	22,843	35,148
Grants	291	-	-	-	-	-	-	291
Total Revenues	**10,234**	**21,929**	**9,036**	**16,488**	**7,836**	**0**	**118,555**	**184,078**

Source: Central Kitsap School District 2009; and BERK, 2012.

South Kitsap School District

SKSD's capital facilities plan includes one capacity project prior to 2019 that will increase interim capacity by about 100 students through the construction of two double classroom portables at a total cost of $600,000. The District expects to be able to pay for these portables with its impact fee revenues. An additional capacity project, construction of a second high school in the 2019-2025 time period, will add capacity for about 1,800 students. The cost and exact timeline of this construction is yet to be determined

The District would also like to make improvements to existing facilities using its operations and maintenance levy, such as roof replacements and repairs, fire alarm system upgrades, and parking lot and asphalt replacements. The ability to complete these desired projects will depend on the total revenue brought in from the operations and maintenance levy over the time period.

The District also has plans to modernize many of its schools and administrative buildings before 2025, but the costs and exact timelines are still to be determined. Exhibit 90 shows the planned timelines and financing for the above mentioned projects.

Exhibit 90
South Kitsap School District Capital Facilities Projects and Financing 2013-2025 (All Amounts in $1,000)

Project and Cost/Revenue (thousands $)	2013	2014	2015	2016	2017	2018	2019-2025	Total
Capacity Projects								
Construct 2nd High School								
Cost							TBD	TBD
Revenue: Bond, Impact Fees, State Funding Assistance							TBD	TBD
Modular Classroom Buildings								
Cost			300		300			600
Revenue: Impact Fees			300		300			600
Debt Service: High School Site Acquisition								
Cost	295	296	292	293	293	293	1,176	2,938

Project and Cost/Revenue (thousands $)	2013	2014	2015	2016	2017	2018	2019-2025	Total
Revenue: Operating Fund, Impact Fees	295	296	292	293	293	293	1,176	2,938
Non-Capacity Projects								
Improvements to Existing Facilities								
Cost	0	850	850	850	850	1,000	7,000	11,400
Revenue: Ops & Maintenance Levy	0	850	850	850	850	1,000	7,000	11,400
Modernize or Replace South Colby Elementary								
Cost							TBD	TBD
Revenue: Bond, State Funding Assistance							TBD	TBD
Modernize or Replace Cedar Heights JHS								
Cost							TBD	TBD
Revenue: Bond, State Funding Assistance							TBD	TBD
Modernize Olalla Elementary								
Cost							TBD	TBD
Revenue: Bond, State Funding Assistance							TBD	TBD
Modernize Orchard Heights Elementary								
Cost							TBD	TBD
Revenue: Bond, State Funding Assistance							TBD	TBD
Modernize South Kitsap High School								
Cost							TBD	TBD
Revenue: Bond, State Funding Assistance							TBD	TBD
Modernize Transportation Building								
Cost							TBD	TBD
Revenue: Bond							TBD	TBD
Modernize Central Kitchen/Warehouse								
Cost							TBD	TBD
Revenue: Bond							TBD	TBD
Modernize Administration Building								
Cost							TBD	TBD
Revenue: Bond							TBD	TBD
Cost and Revenue Summary								
Capacity Projects	295	296	592	293	593	293	TBD	TBD
Non-Capacity Projects	0	850	850	850	850	1,000	TBD	TBD
Total Costs	**295**	**1,146**	**1,442**	**1,124**	**1,443**	**1,293**	**TBD**	**TBD**

Project and Cost/Revenue (thousands $)	2013	2014	2015	2016	2017	2018	2019-2025	Total
Ops & Maint Levy	0	850	850	850	850	1,000	7,000	11,400
Bond, State Funding Assistance	0	0	0	0	0	0	TBD	TBD
Bond, State Funding Assistance, Impact Fees	0	0	0	0	0	0	TBD	TBD
Bond							TBD	TBD
Impact Fees	295	296	592	293	593	293	1,176	2,938
Total Revenues	**295**	**1,146**	**1,442**	**1,124**	**1,443**	**1,293**	**TBD**	**TBD**

Source: South Kitsap School District, 2012; and BERK, 2012.

Bremerton School District

BSD's capital facilities plan includes two capacity projects for a total of $15.7 million and 15 non-capacity projects for a total of $26.1 million. The proposed financing plan is shown in Exhibit 91.

Exhibit 91
Bremerton School District Capital Facilities Projects and Financing 2013-2025 (All Amounts in $1,000)

Project and Cost/Revenue (thousands $)	2013	2014	2015	2016	2017	2018	2019-2025	Total
Capacity Projects								
Middle School STEM program addition at West Hills Stem Academy								
Cost	1,705	1,705						3,410
Revenue: Capital Levy	1,005	1,005						2,010
Revenue: Grants, Donations, Fees	700	700						1,400
Replace Naval Avenue Elementary School								
Cost							12,298	12,298
Revenue: Capital Bond							12,298	12,298
Non-Capacity Projects								
Roof Replacement at Bremerton HS and West Hills STEM Academy								
Cost	2,359							2,359
Revenue: Capital Levy	1,117							1,117
Revenue: State Funding Assistance	1,422							1,422
New Central Kitchen/Child Nutritional Services Center								
Cost				2,760				2,760
Revenue: Capital Levy				2,260				2,260
Revenue: State Funding Assistance				500				500
Upgrade fire alarm panels to meet new codes								
Cost		500						500
Revenue: Capital Levy		500						500
Roof Replacement at Kitsap Lake, Crown Hill, View Ridge, and Administration Building								

Project and Cost/Revenue (thousands $)	2013	2014	2015	2016	2017	2018	2019-2025	Total
Cost		2,300						2,300
Revenue: Capital Levy		2,138						2,138
Revenue: State Funding Assistance		162						162
General Energy Upgrades								
Cost	45	45	45	45				180
Revenue: Capital Levy	45	45	45	45				180
Updated Student Technology								
Cost	200	200	200	200				800
Revenue: Capital Levy	200	200	200	200				800
Bremerton High School Auto Shop Replacement								
Cost							3,000	3,000
Revenue: State Funding Assistance							1,680	1,680
Revenue: Capital Bond							1,320	1,320
Improve restrooms and concession area at Memorial Stadium								
Cost							400	400
Revenue: Capital Bond							400	400
Replace carpeting at schools (as needed)								
Cost	70	70	70	70	70	70	480	900
Revenue: Levy and Local Funds	70	70	70	70	70	70	480	900
Replace or rebuild Facilities/Transportation Building								
Cost						6,500		6,500
Revenue: Capital Bond						6,500		6,500
Replace Telephone System								
Cost				400				400
Revenue: Capital Levy				400				400
Add additional surveillance cameras for safety								
Cost			105					105
Revenue: Capital Levy			105					105
Demolish Old East High School Building Except Gyms								
Cost			1,480					1,480
Revenue: Grants			1,480					1,480
Fix parking and traffic issues								
Cost					400	400	400	1,200
Revenue: Capital Bond					400	400	400	1,200
Upgrade sports fields								
Cost					1,500	1,500		3,000

Project and Cost/Revenue (thousands $)	2013	2014	2015	2016	2017	2018	2019-2025	Total
Revenue: Capital Bond, Donations					1,500	1,500		3,000
Cost and Revenue Summary								
Capacity Projects	1,705	1,705	-	-	-	-	12,298	15,708
Non-Capacity Projects	2,854	3,115	1,900	3,475	1,970	8,470	4,280	26,064
Total Costs	**4,559**	**4,820**	**1,900**	**3,475**	**1,970**	**8,470**	**16,578**	**41,772**
Capital Levy	2,367	3,888	350	2,905	-	-	-	9,510
Grants, Donations, Fees	700	700	-	-	-	-	-	1,400
Capital Bond	-	-	-	-	400	6,900	14,418	21,718
State Funding Assistance	1,422	162	-	-	-	-	1,680	3,264
CNS Reserves	-	-	-	500	-	-	-	500
Levy and Local Funds	70	70	70	70	70	70	480	900
Grants	-	-	1,480	-	-	-	-	1,480
Capital Bond, Donations	-	-	-	-	1,500	1,500	-	3,000
Total Revenues	**4,559**	**4,820**	**1,900**	**3,475**	**1,970**	**8,470**	**16,578**	**41,772**

Source: Bremerton School District, 2012; and BERK, 2012.

5.7 Solid Waste

Overview

Washington State law (RCW 70.95) requires counties to plan an integrated solid waste management system that emphasizes waste reduction and recycling. Chapter 70.105 RCW requires local governments to develop plans for managing moderate risk waste, which includes hazardous wastes produced by households and businesses, and other entities in small quantities. In 2011, Kitsap County adopted its Comprehensive Solid and Hazardous Waste Management Plan, entitled *Waste Wise Communities: The Future of Solid and Hazardous Waste Management in Kitsap County* (Kitsap County 2011). This Plan as well as personal communication with Kitsap County Public Works/Solid Waste Division staff is the source for this analysis.

Kitsap County Public Works/Solid Waste Division is the lead planning agency for solid waste management in Kitsap County. The Plan specifies the management actions that will be taken over a 6-year (detailed) and 20-year (general) time period. The plan is developed with participation from the cities, tribes, and the Navy, as well as a solid waste advisory committee. Through this planning process, counties are encouraged to allow private industry to provide services as much as possible (RCW 70.95.020). The Kitsap County solid waste system is a combination of private companies and public agencies. Components of an integrated solid waste management program are as follows:

- System planning, administration, and enforcement,
- Collection, transfer, and disposal of solid waste,
- Collection and processing of recyclables, and
- Moderate risk waste transfer and collection programs.

Inventory of Current Facilities

Capital components of the solid waste system are owned and operated by a variety of entities. See Exhibit 92 for Kitsap County's current facilities inventory.

Supported programs include waste collection and disposal, collection and processing of recyclables, and acceptance of household and small business hazardous waste.

Exhibit 92
Current Facilities Inventory – Solid Waste

Name	Owner	Operator	Location
Disposal			
Olympic View Transfer Station (OVTS)	Kitsap County Public Works (KCPW)	Waste Management Washington, Inc. (WMWI)	City of Bremerton
Solid Waste Collection			
Olalla Recycling and Garbage Facility (RAGF)	KCPW	WMWI	South Kitsap
Hansville RAGF	KCPW	KCPW	North Kitsap
Silverdale RAGF	KCPW	WMWI	Central Kitsap
Bainbridge Island Transfer Station	City of Bainbridge Island Disposal (COBD)	COBD	City of Bainbridge Island
Household Hazardous Waste Collection Facility	KCPW	KCPW	City of Bremerton
Residential Recyclables Collection			
OVTS Recycling Area	KCPW	WMWI	South Kitsap
Olalla RAGF	KCPW	WMWI	South Kitsap
Hansville RAGF	KCPW	KCPW	North Kitsap
Silverdale RAGF	KCPW	WMWI	Central Kitsap
Bainbridge Island Transfer Station	COBD	COBD	Bainbridge Island
Poulsbo Recycle Center	KCPW	KCPW	City of Poulsbo

Source: Kitsap County Solid Waste Division, 2012; and BERK, 2012

Level of Service Capacity Analysis

The existing level of service for solid waste is calculated based on estimated countywide population and the average per-capita generation rates for solid waste and recycling, as shown in Exhibit 93. The figures in this table were taken from Kitsap County's Solid Waste and Hazardous Waste Management Plan *Waste Wise Communities: The Future of Solid and Hazardous Waste Management in Kitsap County* (Kitsap County 2011).

Exhibit 93
Preferred Land Use Plan LOS Requirements Analysis– Kitsap Solid Waste System

Time Period	Countywide Population	SW Generation Rate[1] (lbs/cap/day)	SW Tons Generated per Year[2]	SW Recycling Rate (lbs/cap/day)	Recycled Tons per Year
2010	251,133	5.0	229,000	2.0	93,000
2018	290,263	5.0	265,000	2.0	108,000
2025	239,473	5.0	301,000	2.0	123,000

Source: Kitsap County Solid Waste Division, 2012 Communication; and BERK, 2012.
[1] SW Generation Rate shown is calculated from SW produced within Kitsap County and North Mason County.
[2] SW generated does not include recyclables.

The County is in the middle of a 20-year contract that took effect in 2002 to send waste to a landfill owned by Waste Management, Inc. (WMI). The landfill has capacity for 50 to 100 years and has additional acreage that could be permitted to increase its capacity further. Planning at Kitsap County and WMI occurs on a yearly basis based on future projected needs. The County would have adequate time to plan for 2025 levels of waste generation, and projected levels could be accommodated at the current landfill site if a new or extended contract is enacted.

Capital Projects and Funding

Exhibit 94 below shows the 2013-1018 and beyond CFP for solid waste facilities. It includes seven projects for a total cost of $3.5 million.

Exhibit 94
Capital Facilities Projects and Financing 2013-2025 (All Amounts in $1,000)

Project and Cost/Revenue (thousands $)	2013	2014	2015	2016	2017	2018	2019-2025	TOTAL
CAPACITY PROJECTS								
1. Poulsbo Recycle Center Improvements								
Cost	750							750
Rev – Ecology Low Impact Development Grant	186							186
Rev – Capital Fund Balance	564							564
2. Silverdale Recycling and Garbage Facility Improvements and Expansion								
Cost	250	500						750
Rev: Tipping Fees	250	500						750
3. OVTS Improvements								
Cost	160							160
Rev: Tipping Fees	160							160
4. OVTS – C&D Area								

Project and Cost/Revenue (thousands $)	2013	2014	2015	2016	2017	2018	2019-2025	TOTAL
Cost	200	700						900
Rev: Tipping Fees	200	700						900
5. Household Hazardous Waste Collection Facility								
Cost	75							75
Rev: Tipping Fees	75							75
NON-CAPACITY PROJECTS								
6. Hansville Landfill Closure Operations								
Cost	40	40	40	55	40	40	225	480
Rev: Hansville Post Closure Fund	40	40	40	55	40	40	225	480
7. Olalla Landfill Closure Operations								
Cost	60	60	60	60	60	60		360
Rev: Olalla Post-Closure Fund	60	60	60	60	60	60		360
COST AND REVENUE SUMMARY								
Capacity Projects	1,435	1,200						2,635
Non-Capacity Projects	100	100	100	115	100	100	225	840
Total Costs	**1,535**	**1,300**	**100**	**115**	**100**	**100**	**225**	**3,475**
Ecology Grant	186							186
Capital Fund Balance	564							564
Tipping Fees	685	1,200						1,885
Post Closure Funds	100	100	100	115	100	100	225	840
Total Revenues	**1,535**	**1,300**	**100**	**115**	**100**	**100**	**225**	**3,475**

Source: Kitsap County Solid Waste Division, 2012; and BERK, 2012.

5.8 Stormwater

Overview

Inventory of Current Facilities

Kitsap County has three basic types of drainage facilities:

- Conveyance Network
- Runoff Quantity and Flow-Control Facilities
- Stormwater Quality Treatment Systems

The drainage infrastructure is guided by topography and flows, without consideration to property ownership, land use, or political boundaries. The conveyance network includes all natural (streams and swales) and constructed open channels (swales and ditches), as well as piped drainage systems (including catch basins and conveyance structures) and culverts. These systems may be located on private property or within the County right-of-way.

Quantity and flow-control facilities include infiltration facilities, retention and detention ponds, tanks, and vaults, and bioretention systems. The purpose of these facilities is to reduce the rate of stormwater flow from a specific

site or area to reduce the potential for localized flooding, minimize flow damage to natural water courses, and prevent downstream erosion problems. These facilities are designed to hold a volume of runoff based on the amount of impervious area and a specific design storm event. Quality and flow-control facilities can be located on either public or private property, depending upon the area being served.

Stormwater quality enhancement facilities include water-quality (wet) ponds, biofiltration swales, infiltration facilities, and bioretention systems. The purpose of these facilities is to remove a certain type and/or amount of pollutant from the runoff before it is discharged into a water body or collection system or dispersed over the ground for infiltration. These facilities may be located on public or private property depending upon the area being served.

Permit conditions may apply to development activities taking place within Kitsap County, for compliance with minimum requirements of the Kitsap County Stormwater Management Ordinance. Drainage control and water quality enhancement facilities constructed for large residential projects are dedicated to Kitsap County SSWM for maintenance. Facilities constructed for commercial and multifamily developments are maintained privately.

Exhibit 95
Current Stormwater Facilities Inventory

Type of System	Quantity
Detention Pond	256
Detention Tank or Vault	76
Retention Pond	67
Water Quality Wet-Pond	34
Bioswale	130
Bioretention Facility or Rain Garden	39
Infiltration Basin	112
Tree-Box Filter (Filterra)	3
Infiltration Trench	26
Underground Water Quality Filter (Storm-Filter)	9
Tide-Gate	13
Hydro-Dynamic WQ Treatment Device	25
Total Facilities	**788**

Source: Kitsap County Surface and Stormwater Management Program 2010.

Level of Service Capacity Analysis

The Kitsap County Surface and Stormwater Management Program has maintenance responsibility for more than 557 stormwater retention/detention and runoff quality enhancement facilities. More than 55 newly constructed and private residential facilities are expected to be included in the SSWM Inspection and Maintenance Programs within the next two years. Approximately 33 percent of the 2011-2016 SSWM Program budget is slated for inspection, maintenance, and retrofitting of existing County stormwater facilities.

The goals and objectives of the County's SSWM Program reflect the level of service (LOS) for stormwater management facilities. The SSWM Capital Improvement Program, adoption of the Kitsap County Stormwater Management Ordinance, and watershed planning activities undertaken by the Department of Community Development all contribute to the public's level of service expectations.

Current LOS

The current level of service complies with applicable state regulations. Land development activities requiring land use approval from Kitsap County are currently conditioned to meet the water quality, runoff control, and erosion

control requirements of Kitsap County's Stormwater Management Ordinance and Design Manual, which was adopted by the Board of Commissioners, amended in August of 2009 and implemented in February of 2010.

The Kitsap County Storm Drainage Ordinance and Design Manual requires development projects to provide water quality enhancement at 91 percent of the runoff volume generated at the project site. When discharging to streams or open channels, runoff rates from development sites are required to be controlled to meet stream bank erosion control standards. These standards require that post-developed peak flow runoff rates for all storms ranging from the two-year storm through the 50-year storm as predicted by the Western Washington Hydrology Model. Details of these design criteria can be found in the current National Pollution Discharge Elimination System permit for Western Washington Phase II, issued by the Department of Ecology in 2007.

Capital Projects and Funding

The SSWM Capital Improvement Program focuses on correction of drainage problems that are not likely to be financed by the County's road fund. The objective of the program element is to secure sufficient funding to construct projects that address identified water quality problems, publicly owned fish passage barriers, and serious flooding problems located beyond County rights-of-way.

The County's stormwater facilities include 27 capital projects at a cost of $17.8 million. New development in the 2019-2025 period will meet LOS criteria through compliance with applicable regulatory criteria. Other stormwater capital projects in the 2019-2025 period may include regional retrofits or restoration projects designed to address historical problems. The specific schedule and revenue sources for these 2019-2025 projects will be identified through future six-year CIP planning processes.

Exhibit 96
SSWM Capital Facilities Projects and Financing 2013-2025 (All Amounts in $1,000)

Project Descriptions	2013	2014	2015	2016	2017	2018	2019-2025	TOTAL
Stormwater Capacity – Conveyance & Flood Control – Water Quality Improvement – Fish Passage – Aquatic Restoration								
Red = SSWM Project Blue = Joint SSWM-Roads Project Green = Joint SSWM-Parks Project								
1. WF Clear Creek Culvert Replacement @ Sunde Rd (CK)								
Estimated Project Cost (Design-Permitting, & Construction)	$200K							**$200K**
Stormwater Utility Funding (97003094)	$200K							**$200K**
2. WF Clear Creek Culvert Replacement @ Shadow Glen Rd (CK)								
Estimated Project Cost (Design-Permitting, & Construction)	$300K							**$300K**
Stormwater Utility Funding (97003095)	$300K							**$300K**
3. Colchester Drainage Improvements (SK)								
Estimated Total Project Cost (Design, Permitting, & Construction)	$300K							**$300K**
Roads (TIP) Funding	$50K							**$50K**
Stormwater Utility Funding (97003013)	$250K							**$250K**
4. Bucklin Hill Drainage Improvements (CK)								
Estimated Total Project Cost (Design, Permitting, & Construction)	$450K							**$450K**
Roads (TIP) Funding	$200K							**$200K**
Stormwater Utility Funding (97003013)	$250K							**$250K**
5. Illahee Drainage Improvements (NK)								

Project Descriptions	2013	2014	2015	2016	2017	2018	2019-2025	TOTAL
Estimated Total Project Cost (Design, Permitting, & Construction)	$250K							**$250K**
Roads (TIP) Funding	$50K							**$50K**
Stormwater Utility Funding (97003013)	$200K							**$200K**
6. Jackson & Lund Regional Drainage Improvements (SK)								
Estimated Project Cost (Design-Permitting, & Construction)		$300K						**$300K**
Stormwater Utility Funding (97003090)		$300K						**$300K**
7. Central Kitsap – Dickerson Creek Culvert Replacements (Taylor & David Roads) & Floodplain Restoration (CK)								
Estimated Project Cost (Design-Permitting, & Construction)	$100K	$900K	$200K					**$1.2M**
Stormwater Utility Funding (97003093)	$100K	$900K	$200K					**$1.2M**
8. North Kitsap Stormwater & LID Retrofit Plan (NK)								
Estimated Project Cost (Design-Permitting, & Construction)	$200K							**$200K**
Stormwater Utility Funding (97003108)	$200K							**$200K**
9. North Kitsap – Clear Creek Floodplain Restoration (NK/CK)								
Estimated Project Cost (Design-Permitting, & Construction)	$200K	$900K	$100K					**$1.5M**
Salmon Recovery Grant Funding (?)		$500K						**$500K**
Stormwater Utility Funding (97003096)	$200K	$400K	$100K					**$1.0M**
10. EF Clear Creek Culvert Replacement @ Mountainview Road (NK)								
Estimated Project Cost (Design-Permitting, & Construction)			$450K					**$450K**
Stormwater Utility Funding (97003028)			$450K					**$450K**
11. Silverdale Way Stormwater WQ Treatment System (CK)								
Estimated Project Cost (Design-Permitting, & Construction)		$100K	$400K					**$200K**
Ecology Grant Funding			$300K					**$300K**
Stormwater Utility Funding (97003118)		$100K	$100K					**$200K**
12. Central Kitsap – Strawberry Creek Culvert Replacement @ Silverdale Loop Rd (CK)								
Estimated Project Cost (Design-Permitting, & Construction)			$500K					**$500K**
Stormwater Utility Funding (97003102)			$500K					**$500K**
13. Manchester Stormwater Treatment System, Outfall Replacement, and Road & Sidewalk Improvements (SK)								
Estimated Project Cost (Design-Permitting, & Construction)	$300K	$200K	$3.0M					**$3.5M**
Roads (TIP) Funding			$800K					**$800K**

Project Descriptions	2013	2014	2015	2016	2017	2018	2019-2025	TOTAL
Ecology Grant Funding			$1.0M					**$1.0M**
Stormwater Utility Funding (97003107)	$300K	$200K	$1.2M					**$1.7M**
14.Illahee Regional Stormwater Facility								
Estimated Project Cost (Design-Permitting, & Construction)	$100K	$100K	$1.1M					**$1.3M**
Ecology Grant Funding			$600K					**$600K**
Stormwater Utility Funding ((97003088)	$100K	$100K	$500K					**$700K**
15. Silverdale Regional Stormwater Facility (CK)								
Estimated Project Cost (Design-Permitting, & Construction)		$100K	$100K	$750K				**$950K**
Ecology Grant Funding (?)				$500K				**$500K**
Stormwater Utility Funding (97003081)		$100K	$100K	$250K				**$450K**
16. Point No Point Tide-Gate Replacement (NK)								
Estimated Project Cost (Design-Permitting, & Construction)			$300K					**$300K**
Stormwater Utility Funding (97003040)			$300K					**$300K**
17. Burley Creek Culvert Replacement @ Bethel-Burley Rd (SK)								
Estimated Project Cost (Design-Permitting, & Construction)		$250K	$100K	$750K				**$1.1M**
Roads (TIP) Funding				$750K				**$750K**
Stormwater Utility Funding (97003100)		$250K	$100K					**$350K**
18. Kitsap County Green Street Plan								
Estimated Project Cost (Design-Permitting, & Construction)	$300K							**$300K**
Stormwater Utility Funding (97003108)	$300K							**$300K**
19. Erlands Point Stormwater Improvement Project (CK)								
Estimated Project Cost (Design-Permitting, & Construction)				$300K				**$300K**
Stormwater Utility Funding (97003085)				$300K				**$300K**
20. Steele Creek Regional Stormwater Treatment Facility (NK)								
Estimated Project Cost (Design-Permitting, & Construction)	$100K				$700K			**$800K**
Stormwater Utility Funding (97003115)	$100K				$700K			**$800K**
21. Manchester Regional Stormwater Treatment Facility (SK)								
Estimated Project Cost (Design-Permitting, & Construction)	$100K				$500K			**$600K**
Stormwater Utility Funding (97003089)	$100K				$500K			**$600K**
22. Driftwood Key Regional Stormwater Treatment Facility (NK)								

Project Descriptions	2013	2014	2015	2016	2017	2018	2019-2025	TOTAL
Estimated Project Cost (Design-Permitting, & Construction)	$100K				$600K			**$700K**
Stormwater Utility Funding (97003075)	$100K				$600K			**$700K**
23. Parks Permeable Parking Lots (SK)								
Estimated Project Cost (Design-Permitting, & Construction)	$100K	$100K	$700K					**$900K**
Parks (Grant) Funding			$600K					**$600K**
Stormwater Utility Funding (97003110)	$100K	$100K	$100K					**$300K**
24. Thomas Creek Culvert Replacement (CK)								
Estimated Project Cost (Design-Permitting, & Construction)				$100K	$100K	$700K		**$900K**
Roads (TIP) Funding						$400K		**$400K**
Stormwater Utility Funding (97003111)				$100K	$100K	$300K		**$500K**
25. Lemolo Creek Culvert Replacement s (NK)								
Estimated Project Cost (Design-Permitting, & Construction)				$100K	$100K	$700K		**$900K**
Roads (TIP) Funding						$400K		**$400K**
Stormwater Utility Funding (97003109)				$100K	$100K	$300K		**$500K**
26. Duncan Creek Culvert Replacement (SK)								
Estimated Project Cost (Design-Permitting, & Construction)				$100K	$100K	$700K		**$900K**
Roads (TIP) Funding						$400K		**$400K**
Stormwater Utility Funding (97003110)				$100K	$100K	$300K		**$500K**
27. Ridgetop Boulevard Green Street Retrofit (CK/NK)								
Estimated Project Cost (Design-Permitting, & Construction)				$200K	$100K	$1.2M		**$1.5M**
Ecology Grant Funding								
Roads (TIP) Funding						$500K		**$500K**
Stormwater Utility Funding (97003100)				$200K	$100K	$700K		**$1.0M**
TOTALS	$2,100	$2,800	$5,100	$2,300	$3,200	$2,300	$0	**$17.8M**

Source: Kitsap County Surface and Stormwater Management Program 2011

Exhibit 97 provides a summary of the projected stormwater capital project costs and proposed financing plan.

Exhibit 97
SSWM 2012-1017 CFP Summary: Costs and Revenues

	2013	2014	2015	2016	2017	2018	2019-2025	TOTAL
Annual Estimated Capital Project Costs	**$2.1**	**$2.8M**	**$5.1M**	**$2.3M**	**$3.2M**	**$2.3M**	**$0**	**$17.8M**
Stormwater Utility Funds	**$2.0M**	**$2.0M**	**$2.0M**	**$2.0M**	**$2.0M**	**$2.0M**		**$12.0M**
Stormwater Reserve Funds	**$100K**	**$800K**	**$1.4M**	**$300K**	**$200K**	**$300K**		**$2.8M**
External/Grant Funds	**N/A**	**N/A**	**$1.7M**	**N/A**	**$1.3M**	**N/A**		**$3.0M**
Total Annual Funding	**$2.1M**	**$2.8M**	**$3.0M**	**$2.3M**	**$3.2M**	**$2.3M**		**$17.8M**
Stormwater Reserve Fund Balance	**$8.0M**	**$7.2M**	**$5.8M**	**$5.5M**	**$5.3M**	**$5.0M**		**$5.0M**

Source: Kitsap County Surface and Stormwater Management Program 2011 Transportation

5.9 Transportation

Background

The CFP includes transportation improvement projects that are identified in the County's 20-year Transportation Needs List, which in turn, is influenced by the transportation goals, policies, and priorities included in the County's Comprehensive Plan Transportation Element, which is the County's long-range transportation planning document.

The Transportation Element satisfies the requirements of GMA and defines the transportation policies, methods, and priorities for the County transportation system over a 20-year planning period. The Transportation Element is guided by the countywide transportation planning policies, as described in the previous section. This document includes inventory of transportation infrastructure and services within the County, establishes operational standards, provides analysis methods and results for operations of the transportation system, and provides a financially balanced six-year Transportation Improvement Program (TIP) to ensure that the transportation system is adequate to support the long-range land use plan.

Inventory of Current Facilities

Exhibit 98 summarizes the existing miles of countywide arterial roadways by County functional classification.

Exhibit 98
Arterial Mileage by Functional Classification (Kitsap County)

Functional Classification	Total Miles of Roadway	Percentage of Total
Urban Principal Arterial	9.85	1.06%
Urban Minor Arterial	95.15	10.22%
Urban Collector	48.04	5.16%
Rural Minor Arterial	18.37	1.97%
Rural Major Collector	94.13	10.11%
Rural Minor Collector	51.25	5.51%
Local	614.12	65.97%
Total	930.91	100.0%

Source: Kitsap County 2012

Level of Service Capacity Analysis

LOS designations are qualitative measures of congestion that describe operational conditions within a traffic stream and take into consideration such factors as volume, speed, travel time, and delay. LOS is represented by letter grades, A through F. LOS A through C imply traffic flows with minimal delay, while LOS D and E imply conditions that approach capacity, and LOS F implies unstable flow with potential for substantial delays (Transportation Research Board 2000). The characteristics of the six LOS designations for roadway segments are summarized in Exhibit 99. The LOS scale has been adopted by the Institute of Transportation Engineers, the Transportation Research Board, and by most jurisdictions throughout the country.

Exhibit 99
LOS Descriptions

LOS	Roadways
A	Describes primarily free flow operations at average travel speeds, usually about 90% of the free flow speed for the arterial class. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Stopped delay at signalized intersections is minimal.
B	Represents reasonably unimpeded operations at average travel speeds, usually about 70% of the free flow speed for the arterial class. The ability to maneuver within the traffic stream is only slightly restricted and stopped delays are not bothersome. Drivers are not generally subjected to appreciable tension
C	Represents stable conditions; however, ability to maneuver and change lanes in mid-block location may be more restricted than in LOS B, and longer queues and/or adverse signal coordination may contribute to lower average travel speeds of about 50% of the average free flow speed for the arterial class. Motorists will experience appreciable tension while driving
D	Borders on a range in which small increases in flow may cause substantial increases in approach delay and, hence, decreases in arterial speed. This may be due to adverse signal progression, inappropriate signal timing, high volumes, or some combination of these. Average travel speeds are about 40% of free flow speed
E	Characterized by significant approach delays and average travel speeds of one-third the free flow speed or lower. Such operations are caused by some combination of adverse progression, high signal density, extensive queuing at critical intersections, and inappropriate signal timing.
F	Characterizes arterial flow at extremely low speeds below one-third to one-quarter of the free flow speed. Intersection congestion is likely at critical signalized locations, with resultant high approach delays. Adverse progression is frequently a contributor to this condition.

Source: Transportation Research Board 2000

Kitsap County uses traditional engineering methodology to evaluate LOS of roadway segments, which are sections of roadway located between major intersections. Roadway travel volumes are compared to roadway capacity to develop a ratio known as volume-to-capacity (V/C). The volume-to-capacity ratios relate directly to measures of level of service. Exhibit 100 shows the relationships between LOS, V/C ratios, peak hour, and free flow speed on a roadway segment.

Exhibit 100
V/C Ratio Ranges As They Relate To LOS

LOS	Volume to Capacity Ratio Range	Percent of Free Flow Speed (Peak Hour)
A	0.50 and below	90% or greater
B	0.60 to 0.69	70% to 90%
C	.70 to .79	50%
D	.80 to .89	40%
E	.90 to .99	33%
F	1.00 and above	25% or less

Source: Kitsap County 2012

Kitsap County's LOS policy generally recognizes that urban areas are likely to have more congestion than rural areas. This reflects the different characteristics of land use and transportation in these areas. For purposes of defining LOS standards, urban areas are the geographic areas located within a UGA boundary, and rural areas are the geographic areas located outside of all UGA boundaries.

The LOS standards shown in Exhibit 101 are based upon the location and functional classification of the roadway facilities to which they apply. Though the County’s goal is to have no LOS deficiencies, it is recognized that not all roadways will meet the standards all the time given the limits of county, state and federal funding and timing of

project implementation. Therefore, 15% of the lane miles tested for concurrency will be allowed to temporarily exceed LOS standards. This 15% allowance shall be applied at both the system wide and project site level. Generally, the 15% threshold for road concurrency is the County's adopted strategy to ensure LOS standards are within an accepted range and is not an acknowledgement of a LOS deficiency. This 15% is evaluated on a countywide basis and includes both rural and urban areas.

Exhibit 101
Roadway Capacity/Congestion LOS Standards

	Maximum V/C Ratio/LOS Standard	
Functional Classification	**Urban[1]**	**Rural[2]**
Principal Arterial	.89/D	.79/C
Minor Arterial	.89/D	.79/C
Collector	.89/D	.79/C
Minor Collector	.89/D	.79/C
Residential/Local	.79/C	.79/C

Source: Kitsap County 2012

1 Urban area is located within a UGA boundary

2 Rural area is located outside UGA boundaries

Concurrency Management

GMA requires that Kitsap County adopt and enforce ordinances that prohibit development approval if the development causes the LOS on a transportation facility to decline below the standards adopted in the transportation element of the Comprehensive Plan, unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with the development. This requirement is commonly referred to as "concurrency" and is described in WAC 365-196-840. Concurrency means that transportation infrastructure and services must be adequate to support land use, with adequacy defined by locally adopted standards. Under GMA, 'concurrent with the development' shall mean that improvements or strategies are in place at the time of development, or that a financial commitment is in place to complete the improvements or strategies within six years.

The purpose of concurrency management is as follows:

- Provide adequate levels of service on transportation facilities for existing uses as well as new development in unincorporated Kitsap County;
- Provide adequate transportation facilities that achieve and maintain County standards for levels of service as provided in the comprehensive plan, as amended; and
- Ensure that County level of service standards are maintained as new development occurs as mandated by the concurrency requirements of the GMA.

The Kitsap County Concurrency Management Ordinance establishes the process for testing whether a development project meets concurrency. At the system wide level, measures of system wide concurrency are conducted on an annual basis and periodically during development of the comprehensive plan, subarea plans and corridor studies.

At the project site level, Individual development proposals are tested for concurrency at the project site level, or area of influence.

If LOS is equal to or better than the adopted standard, the concurrency test is passed, and an applicant is issued a Capacity Reservation Certificate. For purposes of concurrency determination, the analysis of LOS adequacy would only be applied to County arterials and collectors in rural areas and urban areas under the County's jurisdiction. A Certificate of Concurrency is not issued to any proposed development if the standards in this section are not

achieved and maintained within the six-year period allowed by GMA for transportation concurrency. The applicant has the option of accepting the denial of application; appealing the denial of application; or accepting a 90-day reservation period, and within this time, revising the development proposal to bring transportation within concurrency requirements.

LOS Deficiencies

Exhibit 102 summarizes the miles of roadway segment that LOS analysis has shown to exceed standards (are deficient) under existing conditions. The information in the table represents all segments with functional classification of Collector or higher, and shows that approximately 3.1% of lane-miles of functionally classified roadways in Kitsap County currently exceed LOS standards. This is well below the 15% concurrency threshold, and indicates that under the existing concurrency management program, the system-wide concurrency test would be passed for a considerable level of additional development.

Exhibit 102
Current Roadway Deficiencies for County Roadways

Region	Total Number of Segments[1]	Total Lane-Miles[2]	Number of Deficient Segments[3]	Lane-Miles of Deficient Segments[3]	Percent Lane-Miles of Deficient Segments	Concurrency Threshold
North	170	189.1	7	8.0	4.2%	15%
Central	263	202.3	14	5.5	2.7%	15%
South	215	251.2	11	6.3	2.5%	15%
TOTAL	648	642.6	32	19.8	3.1%	15%

Source: Kitsap County 2012

1 Segments include all functionally classified roadways (collector or higher)

2 Lane-miles are calculated by multiplying the length of the roadway by the number of lanes on that roadway

3 Deficient segments are those for which V/C exceeds standards defined in Exhibit 101.

Exhibit 103 summarizes the lane-miles of deficient county roadway segments projected by 2025 under the two alternatives. As noted earlier in this chapter, a county roadway is considered deficient if the projected V/C ratio exceeds the County's adopted standards (Exhibit 101).

Exhibit 103
Projected Roadway Segment Deficiencies under the Preferred Land Use Plan by 2025

	Results of Preferred Land Use Plan
North County	9.6 lane-miles (9 segments)
Central County	9.2 lane-miles (25 segments)
South County	34.9 lane-miles (40 segments)
Total Deficient Lane-Miles[1]	**53.7 lane-miles (74 segments)**
Total 2025 County Roadway Lane-Miles	642.6 lane-miles
Percent of Deficient Lane-miles	8.3%

Source: Kitsap County 2012

1 Deficient segments are those for which V/C exceeds standards defined in Exhibit 101.

Exhibit 103 shows a projected level of roadway segment deficiency of 8.3% of total lane-miles, which is below the County concurrency standard of 15%.

Capital Facilities Projects and Financing

Transportation facilities include 74 improvements to capital facilities at various locations throughout the County at a cost of $58,218,000, as listed in Kitsap County's *Six Year Transportation Improvement Program – 2012 to 2017*. The proposed financing plan is shown on Exhibit 104. The table does not show transportation improvements that will be financed and constructed by private parties, for example, improvements that are conditions of a project approval.

The improvements needed in order to meet adopted County roadway segment LOS standards for the Preferred Land Use Plan are shown in Exhibit 104. The estimated costs associated with these projects are summarized, though revenue sources have not yet been identified since these projects are expected to occur outside of the 2013-2018 six-year CIP period. Total costs for these improvements under the Preferred Land Use Plan are estimated at $159,318,000.

Exhibit 104
Kitsap County Capital Facilities Projects and Financing 2012-2025 (All Amounts in $1,000)

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2012	2013	2014	2015	2016	2017	2018	2019-2025	Total	6-Year TIP[1]	Preferred Land Use Plan 2025
Six-Year Transportation Program – 2012 to 2017	**Improvement**											
1. Lake Flora Road – Phase 2	Yes										X	
Lake Flora Rd. / J.M. Dickenson Rd.												
Intersection Improvements												
Cost[2]		10								10		
2. Division Ave. NE	No										X	
Suquamish Way NE to Columbia Street												
Safe Walk to Schools												
Cost[2]		10								10		
3. Southworth Drive Bridge	No										X	
Southworth Drive at Curley Creek												
Replace concrete bridge												
Cost[2]		150								150		
4. Stavis Bay Road - Bridge No. 23	No										X	
Stavis Bay Road @ Stavis Creek												
Replace Timber Bridge												
Cost[2]		10								10		

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2012	2013	2014	2015	2016	2017	2018	2019-2025	Total	6-Year TIP[1]	Preferred Land Use Plan 2025
5. Low-Cost Run-Off Road Improvements - Phase 3	No										X	
Countywide Clearzone Inventory												
Cost[2]		301								301		
6. Miami Beach Road Culvert	No										X	
Replace Deteriorated 12" Culvert												
Cost[2]		95								95		
7. South Kingston Rd. Culvert Replacement	No										X	
Carpenter Creek at S. Kingston Road												
Participation with Corps of Engineers												
Cost[2]		175								175		
8. Newberry Hill / Silverdale Way / Chico Way	Yes										X	
Intersection Improvements at Chico Way												
Cost[2]		1775								1775		
9. Eastview Drive Culvert	No										X	
Replace Deteriorated 24" Culvert												
Cost[2]		95								95		

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2012	2013	2014	2015	2016	2017	2018	2019-2025	Total	6-Year TIP[1]	Preferred Land Use Plan 2025
10. SR 104 / Kingston Sidewalk and Drainage Improvements	No										X	
Construct approximately 675 feet of sidewalk and associated drainage improvements												
Cost[2]		213								213		
11. Hite Center Drive - Culvert Replacement	No										X	
Replace culvert with fish passage structure that meets WDFW Fish Passage Design Criteria												
Cost[2]		360								360		
12. Wildcat Lake Road - Culvert Replacement	No										X	
Replace existing 60" dia. culvert with a three sided concrete box culvert												
Cost[2]		689								689		
13. Hunter Road	No										X	
Design and construction of permanent culvert replacement at Huge Creek												
Cost[2]		910								910		

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2012	2013	2014	2015	2016	2017	2018	2019-2025	Total	6-Year TIP[1]	Preferred Land Use Plan 2025
14. Hansville Road Pave Shoulders Ecology Road to Eglon Road Construct paved shoulders	No										X	
Cost[2]		530								530		
15. Lincoln Road / Noll Road Roundabout Participation w / City of Poulsbo	Yes										X	
Cost[2]		100								100		
16. Tremont Avenue SR16 to Port Orchard Boulevard Participation with City of Port Orchard Pedestrian/Bicycle Improvements	No										X	
Cost[2]			10							10		
17. Kitty Hawk Drive Remove existing culvert, rebuild creek bed, const new driveway for existing houses	No										X	
Cost[2]			200							200		
18. Sam Christopherson Ave. Arch Bridge #17 Implement bridge scour counter measures to protect bridge footings	No										X	
Cost[2]		12	141							153		

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2012	2013	2014	2015	2016	2017	2018	2019-2025	Total	6-Year TIP[1]	Preferred Land Use Plan 2025
19. Seabeck Highway Bridge #19 Implement bridge scour counter measures to protect bridge footings.	No										X	
Cost[2]		12	141							153		
20. Bridge No. 11 Miami Beach Bridge Miami Beach Road at Seabeck Creek Bridge Replacement	No										X	
Cost[2]		190	1890							2080		
21. Bucklin Hill Road Bridge Clear Creek crossing Replace culvert w/ new bridge	No										X	
Cost[2]		856	5599	1676						8131		
22. Esquire Hills Selected Neighborhood Roads within Plat Pavement Rehabilitation	No										X	
Cost[2]			500							500		
23. Spirit Ridge Selected Neighborhood Roads within Plat Pavement Rehabilitation	No										X	
Cost[2]			500							500		

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2012	2013	2014	2015	2016	2017	2018	2019-2025	Total	6-Year TIP[1]	Preferred Land Use Plan 2025
24. Bethel Burley Road / Mullinex Road	Yes										X	
Intersection Improvements												
Cost[2]		50	735							785		
25. 2010 Countywide Clear Zone Improvements	No										X	
Clear Zone improvements on approximately 17 roads countywide												
Cost[2]		170	1000							1170		
26. 2010 Countywide Spot Illumination	No										X	
Install spot illumination on approximately 27 urban roads countywide												
Cost[2]		15	185							200		
27. Suquamish Way / Division Ave.	Yes										X	
Intersection Improvements												
Cost[2]		300	1200							1500		
28. SR 303 / Ridgetop Boulevard Signal	Yes										X	
Intersection improvements												
Cost[2]		0	65	460						525		

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2012	2013	2014	2015	2016	2017	2018	2019-2025	Total	6-Year TIP[1]	Preferred Land Use Plan 2025
29. Main Street (E) / Madrone Avenue (E) Main St. - Beach Dr. to Madrone Ave. Madrone Ave. - Main St. to Alaska Ave. Pave Shoulders drainage improvements	No										X	
Cost[2]		5	85	395						485		
30. Hansville Road Pave Shoulders Eglon Road to Twin Spits Road Construct paved shoulders	No										X	
Cost[2]		0	70	1100						1170		
31. Phillips Road / Mullenix Road Intersection Improvements	Yes										X	
Cost[2]		60	15	821						896		
32. Miller Bay Road Bike Trail Heritage Park Entrance to West Kingston Road Construct bike trail	No										X	
Cost[2]		100	150	1380						1630		
33. Southworth Drive Culvert # 1 Replace Deteriorated 18" Culvert	No										X	
Cost[2]		25	10	140						175		
34. Southworth Drive	No										X	

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2012	2013	2014	2015	2016	2017	2018	2019-2025	Total	6-Year TIP[1]	Preferred Land Use Plan 2025
Culvert # 2 Replace Deteriorated 24" Culvert Cost[2]		30	10	190						230		
35. Lincoln Road / Widme Road Vertical curve and grade improvements to improve stopping sight distance Cost[2]	No	40	80	540						660	X	
36. Bucklin Hill Road - Stormwater and Bike/Ped Improvement Tracyton Blvd Intersection east approximately 1,373 feet Cost[2]	No	32	15	683						730	X	
37. Spruce Road Bridge # 22 Implement bridge scour counter measures to protect bridge footings. Cost[2]	No	50	50	255						355	X	
38. Orseth Road Culvert Replace Deteriorated 72" Culvert Cost[2]	No	30	35	1225						1290	X	
39. Lewis Road NW Replace deteriorated 72" culvert 2,290 feet east of Peter Hagen Road at Big	No										X	

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2012	2013	2014	2015	2016	2017	2018	2019-2025	Total	6-Year TIP[1]	Preferred Land Use Plan 2025
Beef Creek												
Cost[2]		20	15	405						440		
40. Salmonberry Road - Design Report	No										X	
City Limits to Phillips Road Lane widening with sidewalk to Jackson Ave. and paved shoulders to Phillips Road												
Cost[2]			100							100		
41. Fairgrounds Road / Central Valley Road	Yes										X	
Channelization Improvements all legs of Intersection												
Cost[2]		5	120	80	1010					1215		
42. Seabeck Highway	Yes										X	
Calamity Lane to Gross Road												
Pave shoulders and channelization at Holly Road intersection												
Cost[2]		10	80	190	1400					1680		
43. McWilliams Road / Old Military Road Intersection	Yes										X	
Construct left-turn channelization on McWilliams Road												
Cost[2]		5	25	60	360					450		

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2012	2013	2014	2015	2016	2017	2018	2019-2025	Total	6-Year TIP[1]	Preferred Land Use Plan 2025
44. Sidney Road Wildwood Road to Shannon Drive Construct two-way left turn lane on Sidney Road	Yes										X	
Cost[2]		5	35	35	510					585		
45. Bethel-Burley Road Culvert To Bridge Replace fish-passage barrier culvert with a short span bridge	No										X	
Cost[2]		50	150	110	1205					1515		
46. Lund Avenue / Harris Road Intersection Construct signal at intersection	Yes										X	
Cost[2]		0	60	55	330					445		
47. Myhre Road / Silverdale Way Intersection Improvements	Yes										X	
Cost[2]		10	40	465	379					894		
48. Beach Drive #1 Main Street to Caraway Road Pave shoulders with associated drainage improvements	No										X	
Cost[2]		0	0	40	95	415				550		

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2012	2013	2014	2015	2016	2017	2018	2019-2025	Total	6-Year TIP[1]	Preferred Land Use Plan 2025
49. Beach Drive #2 Caraway Rd. (E) to Jessica Way (E) Pave Shoulders with drainage improvements	No										X	
Cost[2]		0	0	40	115	495				650		
50. Widme Road / Totten Road Intersection Intersection widening to accommodate truck turning movements with paved shoulders	No										X	
Cost[2]		0	0	0	35	155	0			190		
51. Glenwood Road # 2 Wildwood Road to J H Road Widen, paved shoulders, intersection improvements	Yes										X	
Cost[2]		0	10	90	535	2283	0			2918		
52. E. Chester Road / E. Madrone Avenue California Avenue to Alaska Avenue Construct paved shoulders	No										X	
Cost[2]		0	10	40	125	485	0			660		
53. Bethel-Burley Road / Burley-Olalla Road Intersection Improvements	Yes										X	
Cost[2]		0	5	15	10	386	0			416		

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2012	2013	2014	2015	2016	2017	2018	2019-2025	Total	6-Year TIP[1]	Preferred Land Use Plan 2025
54. Silverdale Way Road Improvements 350 feet south of Byron Street to Anderson Hill Road Widening, intersection improvements	Yes										X	
Cost[2]		0	100	100	100	2746	0			3046		
55. Alaska Avenue Mile Hill Drive to Madrone Avenue Construct paved shoulders	No										X	
Cost[2]		0	0	10	140	160	1010			1320		
56. Fairgrounds Road - Sidewalk Improvements Construct sidewalk both sides from Central Valley Road to Nels Nelson Road	No										X	
Cost[2]		0	0	25	135	55	431			646		
57. Jackson Avenue / Salmonberry Road Intersection Improvements	Yes										X	
Cost[2]				10	60	34	564			668		
58. Island Lake Road – Shoulders Construct paved shoulders from Gallery Street to Camp Court	No										X	
Cost[2]						52	523			575		

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2012	2013	2014	2015	2016	2017	2018	2019-2025	Total	6-Year TIP[1]	Preferred Land Use Plan 2025
59. Anderson Hill Road – Shoulders	No										X	
Construct paved shoulders from 300 feet west of the roundabout to 480 feet east of the roundabout												
Cost[2]						33	342			375		
60. Suquamish Way – Shoulders	No										X	
Hyak Lane to Division Avenue												
Construct 6 feet paved shoulders												
Cost[2]						46	473			519		
61. Sidney Road – Shoulders	No										X	
106 feet south of Lider Road to Port Orchard City Limits Construct 6 feet paved shoulders												
Cost[2]						55	690			745		
62. Carney Lake Road - Shoulders and Realignment	No										X	
306 ft. NE of Alta Vista Dr. to 90° curve Construct 6 ft. paved shoulders and realign curve												
Cost[2]				10	90	60	460			620		

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2012	2013	2014	2015	2016	2017	2018	2019-2025	Total	6-Year TIP[1]	Preferred Land Use Plan 2025
63. Seabeck-Holly Road Bridge #20	No										X	
Replace existing timber bridge at Anderson Creek												
Cost[2]				15	100	85	1260			1460		
64. Horizon Lane SE	No										X	
Replace Deteriorated 42" Culvert												
Cost[2]					10	60	500			570		
65. Tahuyeh Lake Rd / Gold Creek Rd / Kingsway Intersection	No										X	
Realign Intersection												
Cost[2]						25	70			95		
66. Markwick / DNR Trail	No										X	
Silverdale Way to Ridgetop Blvd.												
Construct a hard surface trail through DNR property												
Cost[2]		80				65	75			220		
67. Bucklin Hill Road / Nels Nelson Road Intersection	No										X	
Construct signal with channelization at the intersection of Nels Nelson Road and Bucklin Hill Road												
Cost[2]						25	125			150		

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2012	2013	2014	2015	2016	2017	2018	2019-2025	Total	6-Year TIP[1]	Preferred Land Use Plan 2025
68. County Wide Bridge Repair	No										X	
Bridge repairs at various locations												
Cost[2]		50	300	50	300	50	300			1050		
69. County Wide Sidewalk Repair	No										X	
Replacement/repair of sidewalks and pedestrian ramps at various locations												
Cost[2]		0	200	0	200	0	200			600		
70. County Wide Culvert Projects	No										X	
Replacement of emergent structurally or capacity deficient culverts												
Cost[2]		100	100	100	100	100	100			600		
71. County Wide Surfacing Upgrades	No										X	
Base stabilization and paving of structurally deficient pavements at various locations												
Cost[2]		100	100	100	100	100	100			600		
72. County Wide Safety Improvements	No										X	
Spot improvements for guardrail, and traffic safety improvements												
Cost[2]		200	0	200	0	200	0			600		

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2012	2013	2014	2015	2016	2017	2018	2019-2025	Total	6-Year TIP[1]	Preferred Land Use Plan 2025
73. County Wide Bicycle/Ped. Improvements	No										X	
Spot improvements for bicycle/pedestrian												
Cost[2]		250	250	250	250	250	250			1500		
74. WSDOT Project Participation	No										X	
County participation in State Projects involving County Roads												
Cost[2]		100	100	100	100	100	100			600		
Kitsap County Comprehensive Plan SEIS												
Finn Hill Rd NW	Yes											X
SR 3 Overpass – 158 ft SE of Karkainen Ln NW												
Widen to undivided 4 lanes												
Cost[2]									3579	3579		
Miller Bay Rd NE	Yes											X
Gunderson Rd (NE) - Indianola Rd NE												
Widen to undivided 4 lanes												
Cost[2]									2264	2264		
Ridgetop Blvd NW	Yes											X
SR 303 On/Off Ramp - Hillsboro Drive NW												
Widen to undivided 4 lanes.												
Cost[2]									1760	1760		

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2012	2013	2014	2015	2016	2017	2018	2019-2025	Total	6-Year TIP[1]	Preferred Land Use Plan 2025
Suquamish Way NE Totten Rd NE - Division Ave NE Add 1 left-turn pocket. Assume 200 feet long. Cost[2]	Yes								86	86		X
Viking Way NW SR 308 - Poulsbo City Limits Add new 12 foot center two-way left turn lane. Cost[2]	Yes								5951	5951		X
Anderson Hill Rd NW Apex Rd NW - Frontier Pl NW Widen to undivided 4 lanes. Cost[2]	Yes								15704	15704		X
Anderson Hill Rd NW SE of Frontier Pl NW - Bucklin Hill Rd NW Add new 12 foot center two-way left turn lane. Cost[2]	Yes								4376	4376		X
Bucklin Hill Rd NW Mickelberry Rd NW - Tracyton Blvd Widen to undivided 4 lanes.	Yes											X

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2012	2013	2014	2015	2016	2017	2018	2019-2025	Total	6-Year TIP[1]	Preferred Land Use Plan 2025
Cost[2]									2476	2476		
Bucklin Hill Rd NW Anderson Hill Rd (NW) - Silverdale Way NW Widen to undivided 4 lanes. Cost[2]	Yes								4087	4087		X
Bucklin Hill Rd NW Silverdale Way NW - Blaine Ave NW Signal improvements. Cost[2]	Yes								3091	3091		X
National Ave W Loxie Eagans Blvd W – Arsenal Way W Widen to undivided 4 lanes. Cost[2]	Yes								899	899		X
Newberry Hill Rd NW Hideway Ln NW - Roundup Ln NW Add a 12 foot new center two-way left turn lane. Cost[2]	Yes								3161	3161		X
Newberry Hill Rd NW Provost Rd NW - Chico Way NW Widen to undivided 4 lanes.	Yes											X

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2012	2013	2014	2015	2016	2017	2018	2019-2025	Total	6-Year TIP[1]	Preferred Land Use Plan 2025
Cost[2]									3346	3346		
Newberry Hill Rd NW Chico Way NW – NW Byron St Widen to undivided 4 lanes.	Yes											X
Cost[2]									3612	3612		
Perry Ave NE Sheridan NE - 30th St NE Assume a new 12 foot center lane along the project.	Yes											X
Cost[2]									1241	1241		
Riddell Rd NE SR 303 - Almira Dr NE Add new 12 foot center two-way left turn lane.	Yes											X
Cost[2]									1654	1654		
Riddell Rd NE Pine Rd NE - East of Parkhurst Ln NE Add new 12 foot center two-way left turn lane.	Yes											X
Cost[2]									1641	1641		
Ridgetop Blvd NW Silverdale Way NW - Myhre Rd (NW)	Yes											X

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2012	2013	2014	2015	2016	2017	2018	2019-2025	Total	6-Year TIP[1]	Preferred Land Use Plan 2025
Widen to undivided 4 lanes												
Cost[2]									4901	4901		
Silverdale Way NW	Yes											X
Newberry Hill Rd NW - Byron St NW												
Signal improvements.												
Cost[2]									4348	4348		
Belfair Valley Rd (W)	Yes											X
Mason County Line - Bremerton City Limits												
Widen to undivided 4 lanes												
Cost[2]									9982	9982		
Belfair Valley Rd (W)	Yes											X
Bremerton City Limits - Sam Cristopherson Ave W												
Widen to undivided 4 lanes												
Cost[2]									2822	2822		
Bethel Rd SE	Yes											X
Lider Rd SE - Bielmeier Rd SE												
New 4-lane overpass												
Cost[2]									899	899		
Bethel Rd SE	Yes											X
Bielmeier Rd SE - Ives Mill												

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2012	2013	2014	2015	2016	2017	2018	2019-2025	Total	6-Year TIP[1]	Preferred Land Use Plan 2025
Rd SE Add additional lanes, center turn lane. Cost[2]									15874	15874		
Glenwood Rd SW Lake Flora Rd SW – Fern Vista Place SW Widen to undivided 4 lanes. Cost[2]	Yes								622	622		X
Jackson Ave SE Salmonberry Rd (SE) - Mile Hill Dr (City Limits) Widen to undivided 4 Lanes Cost[2]	Yes								10834	10834		X
Lake Flora Rd SW Bremerton City Limit - J M Dickenson Rd SW Widen to undivided 4 lanes Cost[2]	Yes								8988	8988		X
Lund Ave Madrona Dr SE - Jackson Ave SE Add new 12 foot center two-way left turn lane. Cost[2]	Yes								3905	3905		X
Lund Ave	Yes											X

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2012	2013	2014	2015	2016	2017	2018	2019-2025	Total	6-Year TIP[1]	Preferred Land Use Plan 2025
Jackson Ave SE - Cathie Ave SE Widen to undivided 4 lanes. Cost[2]									6978	6978		
Mile Hill Dr SE California Ave SE - Whittier Ave SE Widen to undivided 4 lanes. Cost[2]	Yes								15431	15431		X
Mullenix Rd SE SR 16 NB Ramp - Horizon Ln SE Widen to undivided 4 lanes. Cost[2]	Yes								1232	1232		X
Old Clifton Rd SW Sunnyslope Rd SW - Feigly Rd SW Widen to undivided 4 lanes. Cost[2]	Yes								5987	5987		X
Old Clifton Rd SW Anderson Hill Road SW - Port Orchard City Limits Widen to undivided 4 lanes. Cost[2]	Yes								7460	7460		X
Sunnyslope Rd SW Old Clifton Rd (SW) - Old Clifton Rd (SW)	Yes											X

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2012	2013	2014	2015	2016	2017	2018	2019-2025	Total	6-Year TIP[1]	Preferred Land Use Plan 2025
Intersection channelization improvements.												
Cost[2]									127	127		
TOTAL COSTS (2012-2025)		**8,385**	**14,486**	**11,460**	**7,794**	**8,520**	**7,573**		**159,318**	**217,536**	**58,218**	**159,318**

Sources: Kitsap County 2012; Parametrix 2012

[1]All projects included in the Six-Year TIP apply to the Preferred Land Use Plan.

[2] Revenue sources for projects in the 2013-2018 period include local funds, impact fees, state funds, and federal funds per the adopted TIP. For projects in the 2019-2025 period, revenue sources will be identified as they advance through the Kitsap County six-year TIP process. County revenues are projected in Chapter 4.

5.10 Water

Overview

Water systems are classified into two categories, Group A (former Classes 1–3) and Group B (former Class 4) systems. Group A systems, having 50 or more connections, currently serve 81% of the total County population; Group B systems, having two to nine connections serve 4%; and the remaining 15% of the population obtains water from individual household wells. Most of the Group B systems were developed with a shallow well to serve short plats or small subdivisions and serve only that development. Exhibit 105 below shows the breakdown of population in the County served by the various types of water systems.

Exhibit 105
Percent Population Served by Type of Water Supply System

Type of Water Supply System	Percent (%) Population Served
Group A Public Water Systems	81
Group B Public Water Systems	4
Individual Household Wells	15
Total	100.0

Source: Kitsap County Water Utility Coordinating Committee. 2005Each of the Group "A" water systems is required by the state to develop a Water System Comprehensive Plan, which must be updated at least every six years. Significant changes to infrastructure must be incorporated into the plans and approved by the state before they can be constructed.

Kitsap County Water Planning Programs

Kitsap Public Utility District (KPUD) has been designated by the Kitsap County Board of Commissioners as having countywide responsibility for technical, managerial, financial, operational, and support services needed to provide satisfactory water resource development, protection, and utility service. KPUD also functions as a Satellite System Management Operator throughout the County by provision of direct service, contract service, and support service.

The KPUD has worked cooperatively with the County and local water purveyors to conduct the Groundwater Management Plan (GWMP) process. The District and County have also jointly sponsored the preparation of a Coordinated Water System Plan (CWSP) for Kitsap County. The District, in coordination with Ecology, completed the initial basin assessment for Kitsap County and is continuing with the second phase of the assessment by subarea. Each of these planning processes is described in more detail below.

Kitsap County Ground Water Management Plan

To meet the requirements of the Ground Water Management Act, the KPUD served as a co-lead agency to develop the Draft Kitsap County Groundwater Management Plan completed in 2004. All of Kitsap County has been identified as a groundwater management area. KPUD coordinated with water purveyors in the County, as well as other members of the Kitsap County Groundwater Advisory Committee.

Preparation of the GWMP was done in accordance with the requirements of Chapter 173-100 WAC, Groundwater Management Areas and Programs. These regulations led to the designation of Kitsap County as a Groundwater Management Area (GWMA) on October 7, 1986. An Interlocal Agreement was entered into between the KPUD and the Kitsap County Board of Commissioners on December 15, 1986. This Agreement established both entities as co-lead agencies for the evaluation and preparation of the GWMP.

Kitsap County Coordinated Water System Plan (CWSP)

The Kitsap County CWSP (revised May 9, 2005) presents an assessment of municipal and industrial water supply needs in Kitsap County and a program to effectively provide water supply and service to customers throughout the area. The CWSP was developed to comply with Chapter 70.116 RCW and Chapter 246-293 WAC by the Water Utility Coordinating Committee (WUCC). The WUCC consists of representatives from each purveyor serving more than 50 customers, the county legislative authority, the Kitsap County Department of Community Development and the Kitsap County Health District.

The CWSP provides a process and strategy for the existing water utilities to define their role in a program consistent with adopted land use polices and projected growth strategy. The regional water supply, transmission, and storage plan represents the collective views of the WUCC and integrates the findings of the Kitsap County GWMP (Water Conservation Per Groundwater Plan Volume III).

The September 2011 CWSP Update addresses only those eight water systems that meet the Department of Health definition of "expanding." These include the Indian Hills, Indianola, Keyport, North Bainbridge, North Peninsula, Suquamish, Vinland, and West Kitsap systems.

Water Conservation in the County

County government supports Group-A water utilities as they pursue ongoing conservation programs. These programs include both supply and demand management measures within individual service areas.

In June 2009, the Board of County Commissioners adopted by resolution a new policy treating water as a resource, not a waste stream. This policy establishes a culture of innovative development and operating practices in order to preserve this natural resource on public property.

Members of the Water Purveyors of Kitsap County (WATERPAK) provide basic conservation kits and literature for water users. They also evaluate the advisability of countywide programs to retrofit existing homes with low flow toilets, low-flow shower heads, restricted flow aerators, and other appropriate devices on a cost-effective basis.

Water utilities conduct leak detection programs that identify problem water losses in distribution systems. The Kitsap County WATERPAK plans to evaluate a regional approach to leakage analysis efforts.

The WATERPAK developed a comprehensive, model water conservation program for small utilities. The conservation program includes conservation objectives, demand forecasting methods, program activities and level of effort, budget estimates, savings estimates, and evaluation and monitoring criteria. Program activities include education, system monitoring and improvements, promotion of conservation devices, incentives for customers, water production monitoring, drought response conservation, and other appropriate supply and demand management measures. WATERPAK plans to conduct joint conservation efforts with Pierce and Mason counties.

Inventory of Current Facilities

Exhibit 106 shows the current inventory and capacity for the Group "A" Community Water Systems that currently serve the County. The inventory includes the name of the water system, County population currently served, and existing and approved DOH connections. All of the Group "A" water systems inventoried in Exhibit 106 for Kitsap County have sufficient water resources to meet existing average demand. Exhibit 107shows existing water rights information throughout the county.

Responses from water purveyors indicate that a majority of the systems in Kitsap County have a range of deficiencies when meeting the requirements as outlined in the Kitsap County Uniform Fire Code. These systems generally need to increase the size of piping, need to install additional looping to increase water pressure for fire flow, or increase frequency of hydrant placement to meet spacing requirements.

Kitsap Public Utility District Water System Facilities

The general characteristics of five major water systems managed by the KPUD are summarized below. Detailed information on each system is included in Exhibit 106.

Eldorado Hills. Eldorado Hills is located in Section 31 and 32, Township 25N, Range 1E. It serves an area that ranges from approximately 100 feet to 500 feet in elevation. Eldorado Hills serves only residential customers.

Keyport Water System. A majority of the Keyport Water System is located in Section 35 and 36, Township 26N, Range 1E, along the south end of Liberty Bay, north of Bremerton along the western shores of the Puget Sound. The remainder of the system is situated in Sections 1 and 2, Township 25N, Range 1E. The topography within this system also varies substantially, rising from sea level to approximately 260 feet. The water system supplies a mix of residential, multi-family, and commercial uses within Keyport.

North Peninsula. The North Peninsula water system was created in 1995 through the consolidation of 7 District systems, including Kingston, Hansville, Jefferson Beach, Jefferson Point, Gamblewood, Cedar Acre 5, and Kingston Farms. The North Peninsula Water System is located on the northern end of the Kitsap Peninsula between the communities of Jefferson Beach and Hansville. The system serves residential and commercial customers.

Suquamish Water System. The Suquamish Water System includes Indianola, Miller Bay, and Suquamish. It is located along Puget Sound north of the Agate Passage bridge in Sections 8, 9, 16, 17, 20, 21, 28 and 29, Township 26N, Range 2E. Approximately 75 percent of the system is within the Port Madison Indian Reservation. The system serves a diverse mix of residential and commercial customers.

Vinland. The Vinland system was formed in October 1994 through the intertie of the Edgewater Estates and Bella Vista systems. The system is located north of the Bangor Submarine Base in Sections 4 and 5 of Township 26N, Range 1E and Section 27, Township 27N Range 1E. The topography within the area rises from sea level near Hood Canal to elevations of 260 feet along Pioneer Way and 280 feet at Edgewater Estates to the north. The District is under contract with the City of Poulsbo to sell 120 gpm continuously from the Vinland system.

Exhibit 106
Current Facilities Inventory – Group "A" Community Water Systems

50+ Connections	Connections		Water Rights [2]						
System Name	Existing	Approved	Qa (afy)	Qi (gpm)	Qi (cfs)	Source Capacity (gpm)	Storage Capacity (gal in 1,000)	Data Source [1]	System Owner/Op [5]
Alpinewood*	97	99	44.6	161		300	10	System	WW
Apex*	125	150	135	190		177	60	KCHD	
Bainbridge Island, City of*	2,232	UND	2,564	3,456	0.35	1,993	2,800	DOH	
Bear Cub	55	55	49.5	107		160	12.02	DOH	
Bethel East	52	55	17	20		120	11	KCHD	NWW
Bill Point	84	84	64.2	42		66	30	KCHD	
BKS	61	66	35	126		180	0	System	WW
Bremerton (SW) City of*	18,061	UND	N/A	17,952	40	3,890	33,730	System	
Bremerton (GW Cert.) *			12,631	10,610	UND	13,200		System	
Bucklin Hill	66	66	42.5	139		114	12.5	KCHD	WW
Cedarbrook*	34	56	30	600		120	0	System	
Cedar Glen MHP	135	135	31	100		232	32.8	KCHD	
Driftwood Cove*	66	120	32	50		50	83	System	KPUD
Eldorado Hills*	153	157	69	225		210	254	System	KPUD
Emerald Heights *	78	90	90	150		152	66	KCHD	
Erland Point*	616	1,001	1,344	900	0.25	500	350	System	
Fragaria Landing*	73	99	32	98		177	28	DOH	

50+ Connections	Connections		Water Rights [2]						
System Name	Existing	Approved	Qa (afy)	Qi (gpm)	Qi (cfs)	Source Capacity (gpm)	Storage Capacity (gal in 1,000)	Data Source [1]	System Owner/Op [5]
Gala Pines*	52	52	54	154		150	50	System	KPUD
Glenwood Station	53	52	25	100		100	40	DOH	WW
Harbor Heights	70	70	22	100		135	20	KCHD	WW
Hintzville Acres	59	60	32.5	105		82	11	KCHD	WW
Holly*	75	99	26	110		85	30	KCHD	
Horizons West*	900	1,122	449	856		1,210	232	KCHD	WW
Indian Hills Estates	56	61	75	100		110	31.7	System	WW
Indianola (4) *	698	UNK	300.4	500		481	280	System	KPUD
Island Lake Water Co. *	264	278	92	80		140	131	KCHD	
Island Utilities*	108	455	336	300		310	358.7	DOH	
Keyport*	420	827	858	650		600	400	System	KPUD
Kitsap West MHP*	96	146	45	250		80	7	DOH	
Little Tree	54	54	36	100		70	30	DOH	WW
Long Lake View Estates*	358	399	152.4	260		212	186.7	System	KPUD
Mainland View Manor	53	57	32.5	150		150	0	DOH	WW
Manchester State Park	67	UND	NA	NA		INPORT	0	DOH	
Manchester Water Dist. *	2,946	4,371	1,673.70	2,260		3,630	3,200	KCHD	
Martell Mobile Manor	79	79	39.5	171		140	40	DOH	
McCormick Woods*	607	750	450	600		1,830	570	KCHD	COPO

50+ Connections	Connections		Water Rights [2]						
System Name	Existing	Approved	Qa (afy)	Qi (gpm)	Qi (cfs)	Source Capacity (gpm)	Storage Capacity (gal in 1,000)	Data Source [1]	System Owner/Op [5]
Meadowmeer Water Svc. *	279	335	150	250		320	235	KCHD	
Miller Bay*	398	460	112	200		170	167	System	KPUD
Minter Creek Rapids*	49	55	93	250		235	0	System	WW
Navy Undersea War Ctr. *	186	UND	NA	NA	0	1,000	600	DOH	
Navy Yard Park*	99	124	48	52		52	110	System	KPUD
Newberry Hill*	40	140	1,720.00	1,950		100\200	749	System	KPUD
North Bainbridge*	1,735	2,028	1,974.00	1,475		911	860	System	KPUD
North Peninsula*	4,961	5,139	2,341.50	1,880		1,880	2,562	System	KPUD
North Perry Avenue WD*	7,475	UND	4,089.60	4,540		3,560	4,750	System	
Olympic View Manor	76	76	13	26		70	5.48	DOH	
Parkview Terrace*	757	1,067	587.1	748		1,580	169	KCHD	WW
Pine Lake MHE 13	73	82	48.6	112		138	5	KCHD	
Port Madison Water Co.*	98	144	80	30		158	65	System	
Port Orchard, City of*	1,935	UND	2,330.00	1,600		2,600	3,300	KCHD	
Poulsbo, City of*	2,650	UND	2,147	1,940	1.2	2,060	3,050	KCHD	
Priddy Vista	80	85	56	47		123	20	KCHD	
Puget Sound Naval Yard*	2,918	UND	NA	NA		INPORT	2,500	DOH	
Rocky Pt. Water Dist. 12*	543	UND	NA	NA		INPORT		KCHD	COBI
Rockaway Beach Water*	66	88	80	34		80	132	KCHD	COBI

50+ Connections	Connections		Water Rights [2]						
System Name	Existing	Approved	Qa (afy)	Qi (gpm)	Qi (cfs)	Source Capacity (gpm)	Storage Capacity (gal in 1,000)	Data Source [1]	System Owner/Op [5]
Sandy Hook Park CC*	100	146	80	160		57	94.5	KCHD	NWW
Scenic Beach State Park	63	UND	NA	NA		65	20	DOH	
Seabeck*	152	300	3,000.00	2,000		600	580	System	KPUD
Sea View and Olalla*	66	99	55	130		130	20	System	WW
Silverdale Water Dist. 16*	5,172	7,731	4,664.90	4,835	0.78	6,730	5,351	KCHD	
S'Kallam-Lower-CWS	92	UND	NA	NA		36	138	KCHD	
S'Kallam-Upper-CWS	80	UND	NA	NA	0.25	179	127	KCHD	
South Bainbridge Water*	1,056	1,415	902.5	767	0.11	625	607	System	
Strattonwood*	72	99	40.5	160		160	30	KCHD	WW
Strawberry Hills	94	94	83.7	125		125	80	System	KPUD
Subase Bangor*	1,292	UND	NA	NA		3,050	3,500	DOH	
Sunnyslope Water Dist. *	399	486	1456.6	200		270	375	KCHD	
Suquamish*	1,453	UND	800	1,650		1,240	815	System	KPUD
Surfcrest Park	47	54	47	105		110	50	KCHD	
Tahuyeh Lake CC*	221	239	2,000.00	334		196	125	KCHD	
View Side Community	62	64	36	125		175	40	KCHD	KPUD
Vinland*	1,090	1,489	1008	1183		1,530	1,116	System	KPUD
West Kitsap	656	707	596	1,475			33	System	KPUD
West Sound Utility District No. 1									

50+ Connections	Connections		Water Rights [2]						
System Name	Existing	Approved	Qa (afy)	Qi (gpm)	Qi (cfs)	Source Capacity (gpm)	Storage Capacity (gal in 1,000)	Data Source [1]	System Owner/Op [5]
Wick Lake Ranches*	220	230	142	300		225	60	System	WW
Total	69,577	44,750	57,680.8	56,239	42.94	63,216	78,326.4		

Source: Kitsap County Water Utility Coordinating Committee. 2005

* Expanding Water System.

PWS = Public Water System: Qa = Annual Quantity; Qi = Instantaneous Quantity; afy = Acre Feet per Year; gpm = gallons per minute; cfs = cubic feet per second.

UND – Undetermined by DOH – System sets capacity; NA = Not Applicable

1. Data obtained from Department of Health Drinking Water Automated Information Network (DWAIN) November 2001, KCHD data base, or input from individual system.

2. Data obtained from Department of Ecology Water Rights Application Tracking System (WRATS) December 2001, or input from individual system (#). Includes allocated amounts associated with permits and certificates. Totals are shown for systems with multiple water rights, not by water system name. This table may not present water rights information pertaining to those systems for which the owner's name differs from the water system name.

3. The City of Bremerton also exercises surface water claims. The total Qi for these claims is 125 gpm, and the total Qa for the claims is 7.5 afy.

4. The Indianola Water System also exercises ground water claims. The total Qi for these claims is 125 gpm, and the total Qa for the claims is 7.5 afy.

5. System Operator or Owner: COB – City of Bremerton; COBI – City of Bainbridge Island; COPO – City of Port Orchard, KPUD – Kitsap Public Utility District; NWW – Northwest Water; WW – Washington Water Service.

Exhibit 107
Summary of Existing Water Rights Information [1]

	North Kitsap	Bainbridge Island	Central Kitsap	South Kitsap	Total
Ground Water Rights					
Qa (afy)	10,965	10,282	26,649	17,044	64,940
Qa (mgd)	9.78	9.17	23.77	15.2	57.93
Qi (gpm)	12,864	11,618	26,424	23,452	74,358
Qi (mgd)	18.52				
Surface Water Rights					
Qa (afy)	762	102	715	626	2205
Qa (mgd)	0.68	0.09	0.64	0.56	1.97
Qi (cfs)	28.89	2.71	38.13	41.26	110.99
Qi (mgd)	0.04	0	0.05	0.06	0.16
Total					
Qa (mgd)	10.46	9.26	24.41	15.76	59.9
Qi (mgd)	18.57	16.73	38.1	33.83	107.24

Source: Kitsap County Water Utility Coordinating Committee. 2005 (CWSP Exhibit 8-3)

Notes:

Qa = Annual Quantity

Qi = Instantaneous Quantity

afy = acre-feet per year

cfs = cubic feet per second

mgd = million gallons per day

(1) All water rights, permits, and certificates within Kitsap County, including municipal, commercial/industrial, domestic, irrigation, and rights for all other purposes of use.

Municipal Water Systems

City of Bremerton

The City of Bremerton Water Utility's system serves over 56,000 residents in Bremerton and portions of Kitsap County, including the Gorst area to the south and the western portion of the Manette Peninsula in central Kitsap County, from the city limits to Bucklin Hill Road. The current service area includes approximately 8,724 acres within the Bremerton City limits and approximately 3,376 acres within Kitsap County. This description does not include other areas with service area agreements, such as PSNS, Jackson Park, and Rocky Point Water District, or the City of Port Orchard. In 2004, the city assumed the Tracyton water system.

The City of Bremerton Water Utility service area is essentially contiguous with the surrounding water purveyors. Erland Point Water District is located at the northwestern boundary of the Bremerton Water Utility service area. The Silverdale Water District is to the northeast. The City of Bremerton Water Utility service area is bounded to the east by the North Perry Avenue Water District, and to the south by the City of Port Orchard and the Sunnyslope Water Districts.

City of Port Orchard. The Port Orchard existing service area, approximately 15 square miles, includes the majority of the current city limits, as well as the recently annexed community of McCormick Woods in the western portion of the service area. The City maintains service to the majority of its residents and a variety of commercial and governmental activities within the City limits, the West Sound Utility District serves a small area in the eastern portion of the City.

State Highway 166 extends along the north of the city and travels eastward from it. Commercial development has typically occurred along the corridor. Since the opening of the Port Orchard Bypass, commercial development has begun to accelerate in the Bethel corridor. Residential development is occurring primarily in the center of the city, and in the McCormick Woods subdivision within the City.

The northern half of the city has the greatest population density. The property development becomes more rural toward the south. It is the policy of the city to provide utility service outside its corporate limits, if the city council approves the action. The customer will be charged a 50% monthly surcharge. The city currently serves three households and the Clam Bake Restaurant along State Highway 166 in unincorporated Kitsap County.

City of Poulsbo. The City of Poulsbo is a community of about 8,500 people located at the north end of Liberty Bay in Kitsap County. The center of the city is on the east shore of the bay about 1 mile south of the head of the bay. The city extends around the head of the bay and about 0.5 mile south on the west side, and the city limits are about 2 miles down the east side of the bay. The incorporated area extends up from the shore into the low hills. It reaches elevations of 300 to 400 feet on the east, and 100 to 200 feet on the north and west.

The City has a policy of requiring new customers outside city limits to file petitions for annexation and to provide power of attorney to the mayor to file petitions of annexation. This has assured that the water system service area is within the City of Poulsbo.

Other Water Systems

West Sound Utility District. West Sound Utility District was formed by the consolidation of Annapolis Water District and Karcher Creek Sewer District in November 2007. The district provides potable water in the Port Orchard UGA and south Kitsap County. It serves from Watauga Beach to Long Lake and includes Beach Drive, East Port Orchard, south of Sedgwick Road, and portions of the City of Port Orchard. The 8.3 square miles of service area with three primary pressure zones range from sea level to an upper pressure zone of 487 feet.

Manchester Water District. The Manchester Water District serves the Southworth, Colby, and Manchester areas. The district's southern boundary borders Sedgwick Road and extends to Colvos Passage of Puget Sound. To the west, the boundary follows Woods Road and a portion overlaps into the Annapolis Water District.

The existing water system serving the district is composed of two service levels. There is a storage reservoir in each subsystem. These service levels are delineated by the 180 foot contour running through the district. The low-level system (elevation 275 feet) serves approximately 65% of the customers. The high level (elevation 430 feet) system has a majority of the Water District supply and storage capacity.

North Perry Avenue Water District. North Perry Avenue Water District extends from Illahee to Keyport Road along Port Orchard Bay and is bounded to the south and west by the City of Bremerton. Although the two systems are connected, this interconnection is not currently utilized. However, it could be activated to aid either district under emergency conditions.

Silverdale Water District bounds North Perry Avenue Water District to the west. The long-range plan for the North Perry Avenue and Silverdale districts is to enter into an agreement to intertie strictly for emergency use. A portion of North Perry Avenue Water District's service area west of Central Valley Road was recently designated an uncontested overlap with Silverdale Water District. This recent change to the boundary took into consideration demand and growth factors to the area and, therefore, no further changes to the North Perry Avenue service area are anticipated in the near future.

KPUD bounds North Perry Avenue Water District to the north. At the end of 1989, the KPUD took over a small section of the north end of the North Perry Avenue Water District. This change had a minimal effect on the North Perry Avenue water system because the rural area had only a minor influence on the overall demand. Any additional changes between the two district's service areas are not foreseen to happen within the study period.

North Perry Avenue Water District has obtained State grant funding to acquire the South Keyport Heights Water system, which serves about 40 connections located in the north end of North Perry's service area. New water mains and service connections for South Keyport Height's customers are in the design stage and will be constructed in 2012. The acquisition will be completed in 2012. South Keyport Heights Water System was already located within the North Perry Avenue Water District service area; therefore, the acquisition does not change North Perry Avenue Water District's service area boundary.

Rocky Point Water District. The Rocky Point Water District serves an area on the west side of City of Bremerton that is outside the city limits and generally encompasses the peninsula known as Rocky Point. The southern boundary is Kitsap Way. The majority of the system was constructed in the early 1940s, but several extensions have been made since that time to complete the system as it exists today. The City of Bremerton's existing water systems surround the district. The system serves approximately 530 customers. Most of these are residential customers, with a few commercial customers adjacent to Kitsap Way in the southern end of the district. There is some vacant land in the district that could provide space for the construction of additional residential units. However, part of the area is not suitable for septic tanks, which will likely preclude home construction at this time. Therefore, it is not anticipated that much expansion will occur in the near future.

Silverdale Water District. The Silverdale Water District provides water service to approximately 5,500 customer connections within the district's retail water service area, which primarily serves the community of Silverdale and its outlying areas. The district's existing retail service water service area comprises an area of approximately 18.5 square miles within unincorporated Kitsap County and includes portions of the Silverdale and Central Kitsap UGAs. The current population served by the district is estimated at 20,648.

The district includes 16 pressure zones, 19 wells with a total capacity of 6,730 gallons per minute, 13 reservoirs with a total capacity of 5.35 million gallons, 14 pressure reducing stations, and 124 miles of water distribution main.

The district is partnering with the Kitsap PUD to develop a regional transmission main to wheel water through Silverdale toward Poulsbo and a plan to jointly share fire storage within the Silverdale and Newberry water systems.

Sunnyslope Water District. The service area includes the community of Sunnyslope primarily south of SR 3, northeast of the Bremerton National Airport, and east of McCormick Woods. The approximately 1,600 acre service area crosses the highway and is contiguous with the City of Bremerton watershed. The district serves Sunnyslope Elementary School and several commercial businesses, but primarily serves single-family residential units at one dwelling unit per acre or greater.

Level of Service Capacity Analysis

Exhibit 108 below, from the CWSP, shows the projected water demands for the county in 2010, 2020 and 2030. These calculations were based on the Puget Sound Regional Council's (PSRC) demographic forecasts for each

forecast analysis zone (FAZ), on past water consumption rates and peaking factors, estimates of future commercial/industrial demand, and effects of conservation. Each of these is described in more detail in the following paragraphs.

The CWSP used water consumption rate estimates of 356 gallons per household per day (gphpd) inside UGAs and 237 gphpd outside UGAs, and a peaking factor of 2.32 to calculate future water demand. These figures are based on average trends in several representative water systems within the county. PSRC demographic forecasts were made at the FAZ level and then FAZs, UGAs and sub-areas were used to assess water demand and water use characteristics. When water districts plan for future growth, each calculates future demand based on past water use trends within the individual district.

Population estimates used in functional plans prepared by the water purveyors vary from the estimates used in the preparation of this CFP. This is attributable to two factors. The County's population estimates for each district are based on transportation analysis zones which overlap but do not coincide with the district's water service area boundaries. The result is a likely overestimation of the current and future population of each district. Further, water districts' baseline population estimates are taken from existing connections, which are converted to population estimates through persons per household assumptions. This approach does not account for households served by private systems and therefore may result in an under-estimate of actual population located within the district service area (but not an under-estimate of actual population served by the district).

The population growth rates assumed in this CFP and the districts' current functional plans are very similar. Therefore, the water capital facilities planning is considered to adequately address the future development envisioned in this Comprehensive Plan. However, the decommissioning of private water systems within UGAs will need to be monitored to ensure that the additional ERUs not currently accounted for in the district's capital facilities plans are addressed in future plan updates.

Since rate estimates are based on past water consumption rates and do not account for the possibility of a new, large commercial or industrial water consumers, it was assumed in the CWSP that between 2000 and 2010, new industries with a total demand of 1.25 mgd would locate in the City of Bremerton's service area, while an additional 0.25 mgd of new industrial demand would develop elsewhere throughout the County. Additional new industrial demands of these same amounts were estimated to develop between the years of 2010 and 2020, and between 2020 and 2030 an additional 0.5 mgd industrial demand would develop in the City of Bremerton.

Effects of conservation were also incorporated into demand calculations to account for implementation of conservation and efficiency measures. WATERPAK, an organization of the larger water purveyors, has pursued an effective conservation program over the past decade. In most cases, larger systems have reduced water losses below ten percent of their water production. For the CWSP, a one percent per year reduction in water supply requirements was assumed for years 2001 through 2010. Further reductions beyond 2010 were not included, based on the assumption that the majority of conservation gains, using current technology, will likely be realized by that time.

Exhibit 108
Water Demand Projections (in mgd) from the CWSP

Year	Average Day Demand [1]	Maximum Day Demand [2]
2010	30.03	69.67
2020	37.57	87.16
2030	42.89	99.50

[1] Based on per household approach, including conservation and additional industrial water supply requirements.

[2] Based on peak day factor of 2.32

Source: Kitsap County Water Utility Coordinating Committee. 2005 (CWSP Table 7-10 Kitsap County Water Supply Requirement Projections (in mgd))

Capital Projects and Funding

West Sound Utility District has 24 maintenance and distribution water projects planned through the year 2025. Exhibit 109 below shows the projected year and cost of the projects.

Exhibit 109
Water Systems – West Sound Utility District Capital Facilities Projects and Financing 2013-2025
(All Amounts in $1,000)

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2019-2025	Total
Project #1 – Tank Maintenance (painting/recoating) - various	No								
Cost			371						371
Revenue: Fees/Charges/Other			371						371
Project #2 – Install Double Check on Private Fire Line	No								
Cost		20	20	20	20	20			100
Revenue: Fees/Charges/Other									
Project #3 – Replace Failed Submersible Pump	No								
Cost		18	18	18	18	18			90
Revenue: Fees/Charges/Other		18	18	18	18	18			90
Project #4 – Purchase new and replacement meters									
Cost		26	26	26	26	26			130
Revenue: Fees/Charges/Other		26	26	26	26	26			130
Project #5 – Purchase spare parts for SCADA system	No								
Cost		7	7	7	7	7			35
Revenue: Fees/Charges/Other		7	7	7	7	7			35
Project #6 – Fire hydrant replacement parts	No								
Cost		15	15	15	15	15			75
Revenue: Fees/Charges/Other		15	15	15	15	15			75
Project #7– SCADA Improvements (Remote CL2 sampling)	No								
Cost		50	50	50	50	50			250
Revenue: Fees/Charges/Other		50	50	50	50	50			250
Project #8 – Replace Powell booster pump house and	No								

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2019-2025	Total
pumps									
Cost		100							100
Revenue: Fees/Charges/Other		100							100
Project #9 – Paint exterior of Powell tank	No								
Cost		53							53
Revenue: Fees/Charges/Other		53							53
Project #10– Demolish Abandoned Karcher Reservoir[1]	No								
Cost		100							100
Revenue: Fees/Charges/Other		100							100
Project #11 – Manchester Intertie	No								
Cost		40							40
Revenue: Fees/Charges/Other		40							40
Project #12 – Sarann Ave Pipe Replacement (8" ductile)	No								
Cost		80							80
Revenue: Fees/Charges/Other		80							80
Project #13 – Voltage Protection at Pumping Plants	No								
Cost		60							60
Revenue: Fees/Charges/Other		60							60
Project #14 – Asset Management Software Purchase	No								
Cost		50							50
Revenue: Fees/Charges/Other		50							50
Project #15 – Replace Mile Hill Drive Main – 4586 Mile Hill to Baby Doll Road[1]	Yes								
Cost			202						202
Revenue: Fees/Charges/Other			202						202
Project #16 – Construct on-site CL2 generation system	No								

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2019-2025	Total
Cost			100						100
Revenue: Fees/Charges/Other			100						100
Project #17 – Construct additional storage	Yes								
Cost				660					660
Revenue: Fees/Charges/Other				660					660
Project #18 – Pole Bldg for Pipe Storage at Salmonberry	No								
Cost				30					30
Revenue: Fees/Charges/Other				30					30
Project #19 –Bethel water main – Salmonberry to Walmart	Yes								
Cost				181					
Revenue: Fees/Charges/Other				181					
Project #20 - Bethel water main – Salmonberry to Sedgwick	Yes								
Cost						516			
Revenue: Fees/Charges/Other						516			
Project #21 - Bethel water main – Cedar to Van Skiver	Yes								
Cost						267			
Revenue: Fees/Charges/Other						267			
Project #22 – Jackson water main – Salmonberry to Sedgwick	Yes								
Cost							674		
Revenue: Fees/Charges/Other							674		
Project #23 – Bethel Main – connect Fred Meyer to Oregon St.	Yes								
Cost							555		
Revenue: Fees/Charges/Other							555		
Project #24 – New receiver for GIS	No								
Cost			22						

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2019-2025	Total
Revenue: Fees/Charges/Other			22						
Total		619	831	1,007	136	919	1,229	0	4,741

Source: WSUD 2011

The City of Bremerton water capital projects for the period 2013 through 2016 include $12,000,000 in planned improvements (Exhibit 110). These capital improvements are associated with capacity projects necessary to serve areas within the Bremerton UGA.

Exhibit 110
Water Systems - City of Bremerton Capital Facilities Projects and Financing 2013-2025
(All Amounts in $1,000)

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2019-2025	Total
Project #1- Distribution Main Improvements	Yes								
Cost		500	500	500	500	500	500	3,000	6,000
Revenue: Fees/Charges/Other		500	500	500	500	500	500	3,000	6,000
Project #2 – 36" Transmission Main McKenna Falls to Gorst	Yes								
Cost							2,000	4,000	6,000
Revenue: Fees/Charges/Other							2,000	4,000	6,000
Total:		500	500	500	500	500	2,500	7,000	12,000

Source: City of Bremerton 2006 and 2008

The Kitsap Public Utility District 2010 list of capital improvements calls for approximately $1,700,000 in water system improvements through the year 2016.

Exhibit 111
Water Systems - Kitsap Public Utility District Capital Facilities Projects and Financing 2013-2025
(All Amounts in $1,000)

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2019-2025	Total
Indianola									
Project #1 – Extend boosted zone Fern St. to Division tanks	Yes								
Cost		342							342
Revenue: Fees/Charges/Other		342							342
Project #2 – Add 2 PRVs at Kitsap St.									
Cost				69					69
Revenue: Fees/Charges/Other				69					69
Project #3 – New booster at Shore Dr. Tank and 2" Dist. Main	Yes								
Cost					141				141
Revenue: Fees/Charges/Other					141				141
Keyport									
Project #4 – Replace 3" AC along Brownsville Hwy with 6"	Yes								
Cost			212						212
Revenue: Fees/Charges/Other			212						212
Project #5 – Install small booster system at Reservoir #1	Yes								
Cost				66					66
Revenue: Fees/Charges/Other				66					66
North Bainbridge									
Project #6 – Extend boosted zone east on Winthers Rd	Yes								
Cost		74							74
Revenue: Fees/Charges/Other		74							74

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2019-2025	Total
Project #7 – 2" transmission main from well 6 to well 3	Yes								
Cost				53					53
Revenue: Fees/Charges/Other				53					53
Project #8 – Replace 4" AC in Valley Rd. with 8" DI	Yes								
Cost			135						135
Revenue: Fees/Charges/Other			135						135
North Peninsula									
Project #9 – Twin Spits Rd – extend boosted zone	Yes								
Cost			26						26
Revenue: Fees/Charges/Other			26						26
Project #10 – Point No Point beach cottages – replace 2" GI	No								
Cost				42					42
Revenue: Fees/Charges/Other				42					42
Project #11 – Kingston 8" DI on E. 1st St.	Yes								
Cost					100				100
Revenue: Fees/Charges/Other					100				100
Suquamish									
Project #12 – Extend 380 pressure zone down Pine	Yes								
Cost			57						57
Revenue: Fees/Charges/Other			57						57
Project #13 –Replace 4" steel in Suquamish Way with 8" DI	Yes								
Cost					98				98
Revenue: Fees/Charges/Other					98				98
Project #14 –Install 4" Main on Alder Ave – extend boosted zone	Yes								
Cost		30							30
Revenue: Fees/Charges/Other		30							30

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2019-2025	Total
Vinland									
Project #15 –Transfer Station Bangor Main Gate	No								
Cost			237						237
Revenue: Fees/Charges/Other			237						237
Total		446	667	230	339	0	0	0	1,682

Source: Kitsap Public Utility District 2011

The North Perry Water District capital improvement projects extending over the next six years are shown in Exhibit 112, below. The proposed projects total approximately $3 million.

Exhibit 112
Water Systems - North Perry Water District Capital Facilities Projects and Financing 2013-2025
(All Amounts in $1,000)

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2019-2025	Total
Project #1 Well Drilling in 490 Pressure Zone (Perry)	Yes								
Cost				150	150				300
Revenue Source: District Rates and Charges				150	150				300
Project #2 New Tank in 400 Pressure Zone	Yes								
Cost							1,000		1,000
Revenue Source: District Rates and Charges							1,000		1,000
Project #3 Rehabilitate Pickering and Center #2 Wells in 490 Pressure Zone	Yes								
Cost		30					50		80
Revenue Source: District Rates and Charges		30					50		80
Project #4 Rehabilitate Gilberton #1 Well in 315 Pressure Zone	Yes								
Cost						50			50
Revenue Source: District Rates and Charges						50			50
Project #5 Radio Read Meter Upgrades	No								
Cost		10	10	10	10	10	10		60
Revenue Source: District Rates and Charges		10	10	10	10	10	10		60
Project #6 Water Main Installation	No								

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2019-2025	Total
Cost		80	80	80	80	80	80		480
Revenue Source: District Rates and Charges		80	80	80	80	80	80		480
Project #7 Change Well Sites to Bulk Sodium Hypochlorite	No								
Cost		20							20
Revenue Source: District Rates and Charges		20							20
Project #8 Recoat Sunset Reservoir 2 MG	No								
Cost			200						200
Revenue Source: District Rates and Charges			200						200
Project #9 Move Stream Mitigation Pump at Steele Creek	No								
Cost		25							25
Revenue Source: District Rates and Charges		25							25
Project #10 Reservoir Mixing Valves at Sunset 2 MG	No								
Cost			60						60
Revenue Source: District Rates and Charges			60						60
Project #11 Reservoir Mixing Valves at Olympus 1 MG and 300,000 Gal	No								
Cost				100					100
Revenue Source: District Rates and Charges				100					100
Project #12 Clean Interior of 7 Reservoirs	No								
Cost		60	45						105
Revenue Source: District Rates and Charges		60	45						105
Project #13 PRV at Bucklin Hill Road from 490 to 345 Pressure Zone	No								
Cost				60					60
Revenue Source: District Rates and Charges				60					60
Project #14 Large Meter Change Out Program	No								
Cost			60						60

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2019-2025	Total
Revenue Source: District Rates and Charges			60						60
Project #15 Water System Comprehensive Plan Update and Rate Study	No								
Cost			90						90
Revenue Source: District Rates and Charges			90						90
Project #16 Install Iron and Manganese Filtration System at Perry Ave	No								
Cost					225				225
Revenue Source: District Rates and Charges					225				225
Project #17 Recoat Exterior of Keyport Reservoir	No								
Cost				80					80
Revenue Source: District Rates and Charges				80					80
Total:		225	545	480	465	140	1,140	0	2,995

Source: North Perry Avenue Water District 2012.

The City of Port Orchard has identified approximately $25 million in capital improvements to the water system through the year 2015. The projects and revenue sources are listed in Exhibit 113.

Exhibit 113
Water Systems - City Of Port Orchard Capital Facilities Projects and Financing 2013-2025
(All Amounts in $1,000)

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015[1]	2016	2017	2018	2019-2025	Total
Project #1 – Telemetry upgrades	No								
Cost				75					75
Revenue Source: District Rates and Charges				75					75
Project #2 – Well 11 Treatment Upgrade	No								
Cost				675					675
Revenue Source: Developer/Conn Charge				169					169
Revenue Source: District Rates and Charges				506					506
Project #3 – Well 10 Pump Generator, Bldg	No								
Cost				650					650

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015[1]	2016	2017	2018	2019-2025	Total
Revenue Source: District Rates and Charges				650					650
Project #4 – Wells 6 & 10 Treatment Improvements	No								
Cost				2,000					2,000
Revenue Source: District Rates and Charges				2,000					2,000
Project #5– Well 10 12" Transmission Main	Yes								
Cost				1,600					1,600
Revenue Source: District Rates and Charges				1,600					1,600
Project #6– PRVs High to Low Zone	No								
Cost				165					165
Revenue Source: District Rates and Charges				165					165
Project #7– City Hall Pump Station Elimination/Well 7 Treatment	No								
Cost				735					735
Revenue Source: District Rates and Charges				735					735
Project #8– 1.1M Gallon 580 Reservoir	Yes								
Cost				2,200					2,200
Revenue Source: Developer/Conn Charge				2,200					2,200
Project #9– 390 to 580 Booster Pump Station	Yes								
Cost				450					450
Revenue Source: Developer/Conn Charge				450					450
Project #10– 390 to 580 12" Transmission Main	Yes								
Cost				1,600					1,600
Revenue Source: Developer/Conn Charge				1,600					1,600
Project #11– 580 to 660 Constant Pressure Booster Station	Yes								
Cost				450					450
Revenue Source: Developer				450					450
Project #12– Melcher St. Pump Station Upgrade	Yes								

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015[1]	2016	2017	2018	2019-2025	Total
Cost				250					250
Revenue Source: Developer/Conn Charge				125					125
Revenue Source: District Rates and Charges				125					125
Project #13– 390 Zone Storage	Yes								
Cost				500					500
Revenue Source: District Rates and Charges				500					500
Project #14– Well 9 Water Treatment	No								
Cost				850					850
Revenue Source: District Rates and Charges				850					850
Project #15– Systems Operation Study	No								
Cost				100					100
Revenue Source: District Rates and Charges				100					100
Project #16– Watermain Replacement Program Phase 1	No								
Cost				6,306					6,306
Revenue Source: District Rates and Charges				6,306					6,306
Project #17– East City Water Main Replacement Program	No								
Cost				2,374					2,374
Revenue Source: District Rates and Charges				2,374					2,374
Project #18– Misc Improvements	No								
Cost				4,129					4,129
Revenue Source: District Rates and Charges				4,129					4,129
Project #19– Wellhead Protection Plan	No								
Cost				50					50
Revenue Source: District Rates and Charges				50					50
Total				25,159					25,159

Source: City of Port Orchard 2009
Note [1]: City of Port Orchard water system capital improvement projects are listed for the period 2009 through 2015.

The City of Poulsbo has identified approximately $3,600,000 in capital improvements to the water system through the year 2015. The projects and revenue sources are listed in Exhibit 114.

Exhibit 114
Water Systems - City Of Poulsbo Capital Facilities Projects and Financing 2013-2025
(All Amounts in $1,000)

Project and Cost/Revenue (thousands $)	Capacity Project (Yes/No)	2013	2014	2015	2016	2017	2018	2019-2025	Total
Westside Well – Treatment for Manganese	No								
Cost			100						100
Revenue: Water Reserves			100						100
Hostmark Transmission Main	Yes								
Cost		40	648						688
Revenue: Water Reserves		40	648						688
Wilderness Park Booster Station Replacement	No								
Cost			50	563					613
Revenue: Water Reserves			50	563					613
Wilderness Park Transmission Main	Yes								
Cost					35	439			474
Revenue: Water Reserves					35	439			474
Old Town: Distribution Main Replacement	No								
Cost				350	350				700
Revenue: Water Reserves				350	350				700
Finn Hill Reservoir #2	Yes								
Cost						1,086			1,086
Revenue: Water Reserves						1,086			1,086
Total:		40	798	913	385	1,525			3,661

Source: City of Poulsbo 2011

Silverdale Water District No. 16 plans approximately $16 million in capital facilities projects for the 2012-2014 period. Detailed information on the projects and costs is not currently available.

The Sunnyslope Water District will update the current Comprehensive Plan in 2012. The District has no plans for any major capital projects in the near future, as no significant growth is predicted and the existing system is expected to be adequate for current needs.

6.0 IMPLEMENTATION

The following programs shall be implemented by 2016, or such earlier date as may be adopted by the County, to ensure that the goals and policies established in the Capital Facilities Element (CFE) will be achieved or exceeded, and that the capital improvements will be constructed. Each implementation program will be adopted by ordinance, resolution or executive order, as appropriate.

1. Review of Applications for Development Permits.

The County shall amend its land development regulations to provide for the review of various applications for development permits which applications, if granted, would impact levels of service set forth in the CFE for certain public facilities. Such system of review shall assure that no final development permit shall be issued which results in a reduction in the levels of service below the standards adopted in Policy CF-3 for certain public facilities. The land development regulations shall include, at a minimum, the provisions of Policy CF-15 in determining whether a development permit can be issued.

The land development regulations shall also address the circumstances under which public facilities may be provided by applicants for development permits. Applicants for development permits may offer to provide public facilities at the applicant's own expense - to ensure sufficient capacity of certain public facilities. Development permits may be issued subject to the provision of public facilities by the applicant subject to the following requirements:

A. The County and the applicant enter into an enforceable development agreement that shall provide, at a minimum, a schedule for construction of the public facilities and mechanisms for monitoring to insure that the public facilities are completed concurrent with the impacts of the development, or the development will not be allowed to proceed.

B. The public facilities to be provided by the applicant are contained in the schedule of capital improvements of the Comprehensive Plan, and will achieve and maintain the adopted standard for levels of service concurrent with the impacts of development.

2. LOS

By the 2016 Ten-Year Update of the Comprehensive Plan, the County shall review and evaluate existing LOS with community desires, fiscal realities and service provider’s evaluation methods.

3. Impact Fees

Impact fee ordinances shall require the same standard for the level of service as is required by Policy CF-3, and may include standards for other types of public facilities not addressed under Policy CF-3. All impact fee ordinances necessary to support the financial feasibility of this element shall be adopted, or amended to the required standard for the level of service by 2016.

4. Biennial Budget.

The County budget shall include in its capital appropriations all projects in the schedule of capital improvements that are planned for expenditure during the subsequent fiscal 2-year period.

5. Update of Capital Facilities Plan

The CFP shall be reviewed and updated in conjunction with the budget process and the release of the official population estimates and projections by the Office of Financial Management of the State of Washington, particularly in association with population allocation reviews by the Kitsap Regional Coordinating Council (KRCC). CFP update tasks shall include:

A. Revision of population projections.

B. Update of inventory of public facilities.

C. Update of costs of public facilities.

D. Update of public facilities requirements analysis (actual levels of service compared to adopted standards).

E. Update of revenue forecasts.

F. Revision and development of capital improvements projects for the next six fiscal years.

G. Update analysis of financial capacity.

H. Amendments to the CFP, including amendments to levels of service standards, capital projects, and/or the financing plan sources of revenue.

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