WEST SOUND UTILITY DISTRICT
RESOLUTINO 02-07

A RESOLUTION OF THE BOARD OF COMMISSIONERS
WEST SOUND UTILITY DISTRICT CONCERNING
THE PROVISION OF SEWER SERVICE WITHIN
THE PORT ORCHARD/SOUTH KITSAP URBAN GROWTH AREA

WHEREAS, in 2006, Kitsap County adopted a ten year update to its comprehensive land use plan; and

WHEREAS, pursuant to the State Growth Management Act, Chapter 36.70A RCW, Kitsap County expanded the Port Orchard/South Kitsap Urban Growth Area (UGA) through the ten year update to accommodate population through the year 2025; and

WHEREAS, the County's ten year update was appealed to the Central Puget Sound Growth Management Hearings Board (CPSGMHB); and

WHEREAS, the CPSGMHB remanded the capital facilities element and plan of the Kitsap County's Comprehensive Plan for additional infrastructure planning regarding public sewer service within the Port Orchard/South Kitsap UGA; and

WHEREAS, Kitsap County was instructed on remand to obtain assurances from the relevant service providers that sanitary sewer service will be adequate and available within the 20-year planning period; and

WHEREAS, West Sound Utility District provides sanitary sewer service within portions of the Port Orchard/South Kitsap Urban Growth Area and can provide such assurances.

NOW THEREFORE: Be it resolved by the West Sound Utility District Board of Commissioners as follows:

1. West Sound Utility District currently provides sewer service within a portion of the Port Orchard/South Kitsap UGA;

2. In 2006, Kitsap County expanded the Port Orchard/South Kitsap UGA within the West Sound Utility District sewer service area pursuant to Kitsap County Ordinance No. 370-2006.

3. West Sound Utility District's 2007 Comprehensive Sewer Plan indicates that the Joint Wastewater Treatment Facility has sanitary sewer treatment plant capacity for 4.2 million gallons per day or 20,700 ERUs, with a peak capacity of 16 million gallons per day. The Joint Wastewater Treatment Facility currently treats 1.5 million gallons per day or 10,260 ERUs from both the City of Port Orchard and District. Therefore, the Joint Wastewater Treatment Facility has capacity for treating the additional wastewater of 10,440 ERUs. The existing capacity can

accommodate the District's anticipated added population of 5,230 ERUs or 13,073 people in 2025 from the expanded UGA.

4. West Sound Utility District currently owns and/or operates a sanitary sewer collection system, sewer mains and pump stations that extend south to properties along State Highway 160 (Sedgwick Road) and east to South Park (Mile Hill Drive). Attached hereto as Exhibit A is a map showing the existing collection system.

5. The District has the capacity and will serve the expanded Port Orchard/South Kitsap UGA as the areas are annexed to the District. Full annexation should occur by 2025.

6. Pursuant to RCW 57.08.005, the District may extend its sewer collection service upon request and fund the extensions through developer extension contracts, utility local improvement districts (ULIDs), or other mechanisms.

7. The District's commitment and ability to provide service to their portion of the Port Orchard/South Kitsap UGA is demonstrated through attached documents (Exhibit B) regarding proposed sewer conveyance infrastructure.

8. Since the District generally relies upon developer extension agreements to finance the extension of sewer collection systems, such project-specific extensions are not shown in the District's capital facilities plan, but rather, are added once a binding commitment is finalized. Attached hereto as Exhibit B is a map showing the conceptual area of additional service to be added upon requests for developer extension agreements through the year 2025.

9. Therefore, the District has both the capacity and the ability to serve their portion of the Port Orchard/South Kitsap UGA with public sanitary sewer service by the year 2025.

ADOPTED this 20th day of December 2007.

ATTEST:

Jerry Lundberg, Chairman

James J. Hart, Vice Chairman

William H. Huntington, Secretary

Jeannie Screws, Commissioner

Susan Way, Commissioner

TECHNICAL ADDENDUM

TO THE

KARCHER CREEK SEWER DISTRICT
2007 COMPREHENSIVE SEWER PLAN

20 December 2007

INTRODUCTION

Karcher Creek Sewer District provides sanitary sewer service to the Port Orchard urban area that is not served by the City of Port Orchard. The City and District each have separate collection systems that direct the wastewater to the Joint Wastewater Treatment Facility (JWWTF). The JWWTF is jointly owned by the City of Port Orchard and Karcher Creek Sewer District. City and District elected officials oversee the JWWTF operations with a Sewer Advisory Committee and the District employees operate the Facility.

Karcher Creek Sewer District adopted its Sewer Comprehensive Plan in 2007. The Plan evaluated the collection system for the next 20 years and identified means to prepare for the anticipated growth. Also included in the Plan is the evaluation of the existing system and a financial analysis for the District.

Figure 5.1 of the 2007 Comprehensive Sewer Plan shows the District's boundary and its planning area. The planning area incorporates the expanded Urban Growth Area that has been designated by Kitsap County for the Port Orchard area.

PLANNING AND SERVICE AREAS

The purpose of this addendum is to more thoroughly evaluate the areas in the expanded UGA for sanitary sewer service. To accomplish this task, the total area has been divided into 13 sectors, as shown in the second figure. The sections are described as follows:

SECTOR	ZONING	DESCRIPTION
1	Urban Low Residential	Abutting Sinclair Inlet and lightly developed lots atop the adjacent hill. Wastewater would drain to the north and be served by the Beach Drive force main.
2	Urban Low Residential Urban Restricted	Abutting Sinclair Inlet and lightly developed lots atop the adjacent hill. Wastewater would drain to the north and be served by the Beach Drive force main.
3	Urban Low Residential Urban Restricted	Undeveloped acreage in lightly developed area. Wastewater would drain to the south along Horstman Road to Olney Avenue.
4	Public Facility	Undeveloped acreage which is a County park. Wastewater would be treated on site.

5	Urban Low Residential	Large lots in lightly developed area. Wastewater would drain to the west along Salmonberry Road
6	Urban Low Residential Public Facility	Mostly developed area with established plats and one County Park abutting Long Lake. The wastewater would be pumped to Sedgwick Road and then west to Jackson. The County park would treat wastewater on site.
7	Urban Low Residential	Primarily residential area served by on-site sewer systems. Potential customers are the school and one possible new plat. Wastewater would flow north to Sedgwick Road.
8	Urban Low Residential	Primarily residential area served by on-site sewer systems. Potential customers are one possible new plat and four smaller plats. Wastewater would flow north to Sedgwick Road.
9	Urban Low Residential Mixed Use	Lightly residential developed with commercial in the area. Wastewater would flow to Bethel Road and then north to Sedgwick Road.
10	Urban Low Residential Mixed Use	Lightly residential developed with commercial in the area. Wastewater would flow to Bethel Road and then north to Sedgwick Road.
11	Urban Low Residential Urban Residential Mixed Use	Lightly residential developed with commercial in the area. Wastewater would flow to Bethel Road and then north to Sedgwick Road.
12	Urban Low Residential	Mostly developed area with established plats. Acreage available for development. The wastewater would be pumped to Sedgwick Road.
13	Urban Low Residential Urban Residential	Large lots and acreage in lightly developed area. Wastewater would be pumped to Sedgwick Road

EXISITNG CONVEYANCE SYSTEM

Karcher Creek Sewer District currently serves 5.5 square miles and anticipates serving a total of 9.5 square miles in the next 20 years. The District was formed when the community assumed ownership of the sewer collection system that was established during World War II. Since that time, the District has extended the system, replaced deteriorated sewer mains, and has used lift stations to serve the

Filename: 5-1 System Deficiencies

Map Generated: Dec 29, 2006

Bremerton

Enetai

Port Orchard Bay

Manette

Wautauga Beach

Point White

Watermen Point

Manchester State Park

EPA

Clam Bay

U.S. NAVY

PUGET SOUND NAVAL SHIPYARD

Point Herron

Sinclair Inlet

Annapolis

Retsil

Port Orchard

Joint Wastewater Treatment Facility

Colby

Long Lake

11TH ST

6TH ST

BURWELL ST

MANETTE BRDG

WARREN AVE

WASHINGTON AVE

TRENTON AVE

PERRY AVE

E 11TH ST

BEACH DR E

OLNEY AVE

SIDNEY AVE SE

MILE HILL DR

SE MILE HILL DR

WOODS RD SE

CALIFORNIA AVE SE

ALASKA AVE SE

COLCHESTER DR SE

E CHESTER RD

CALIFORNIA AVE E

ALASKA AVE E

COLCHESTER DR E

WOODS RD E

PORT ORCHARD BLVD

BETHEL AVE

TREMONT ST

BETHEL RD SE

SIDNEY AVE

JACKSON AVE SE

SE LUND AVE

SE SALMONBERRY RD

SE SEDGWICK RD

PHILLIPS RD SE

SE LIDER RD

PHILLIPS RD

LONG

304

166

160

16

- Deficiencies (structural and roots)
- Sewer Pipe
- Force Mains
- I and I
- Karcher Creek Service Area
- Karcher Creek District Boundary
- PS Drainage Basins

0 600 1,200 2,400 3,600 4,800 Feet

N

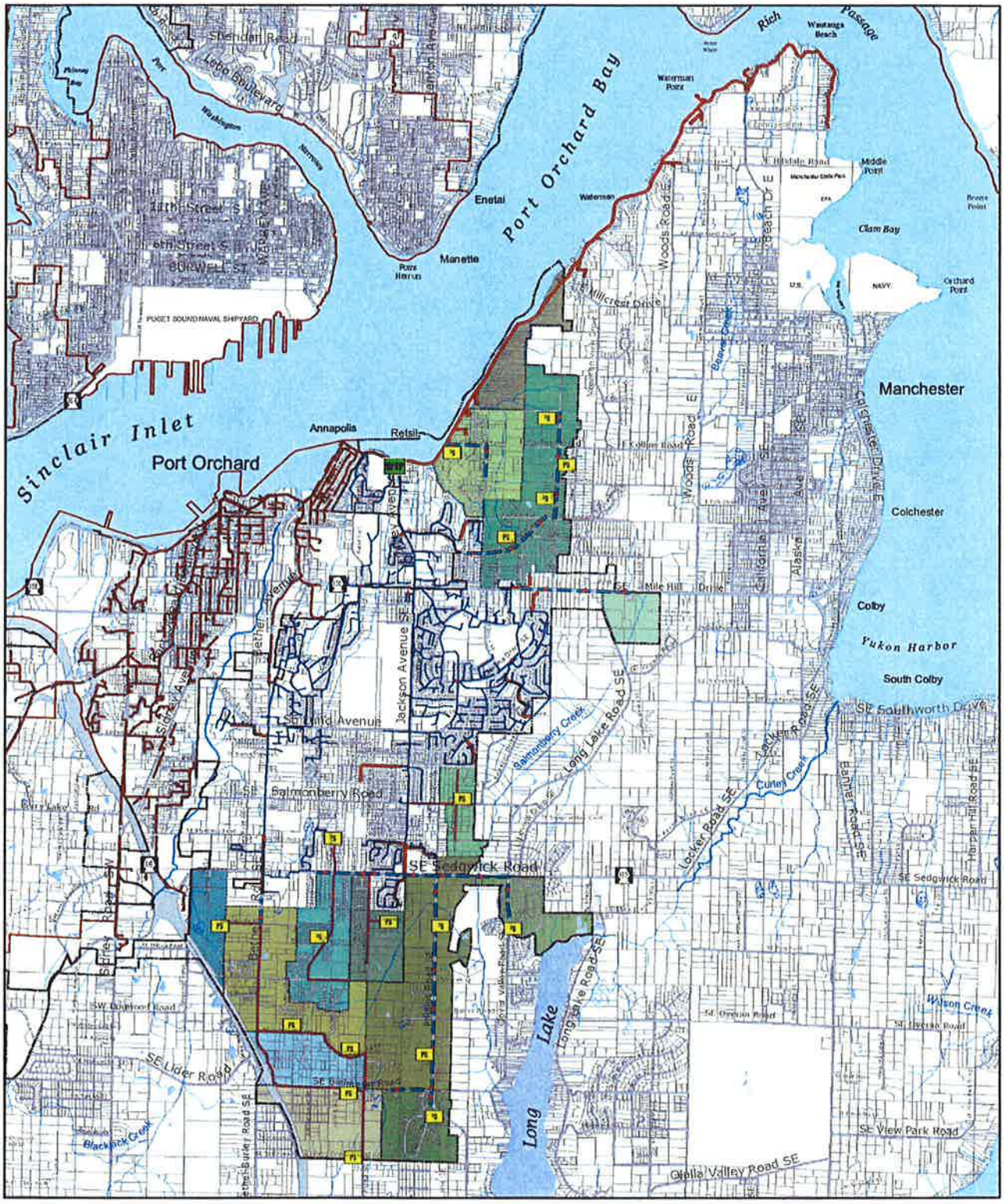
Karcher Creek Sewer District

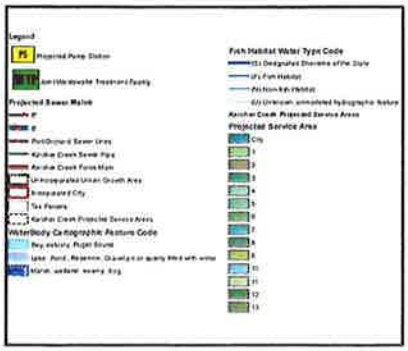
Comprehensive Plan

Fig. 5-1: System Deficiencies

Karcher Creek Sewer System

Existing and Projected





Kitsap County
Department of Community Development

This map was created from existing map sources, not from field surveys. While great care was taken in using the most current map sources available, no warranties of any sort, including accuracy, fitness, or merchantability accompany this product. The user of this map assumes responsibility for determining its suitability for its intended use.

* THIS MAP IS NOT A SUBSTITUTE FOR FIELD SURVEY *

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Sewer Data provided by Kitsap County Information Services/GIS in collaboration with Karcher Creek Sewer District and the City of Port Orchard

Map Date: November, 2007

community. Karcher Creek Sewer District currently has approximately 45 miles of sewer main ranging from 6-inch to 24-inches in diameter.

With certain exceptions, the existing sewer collection system can accommodate the anticipated future flows. The identified improvements in the existing system are summarized as follows. Chapter 6 of the 2007 Sewer Comprehensive Plan describes the Capital Improvement Plan in greater detail.

IMPROVEMENT	AFFECTED AREAS	DESCRIPTION
Beach Drive Low Pressure Force Main	1,2	The force main will reach capacity and second force main will be needed.
Horstman Trunk	3	The sewer main will need to be extended to the east.
Mile Hill Trunk	4	The sewer main will need to be extended to the east.
Olney Jackson Interceptor	5,6,12,13	Capacity between Manhole 76 and 258 will need to be increased.
Converse Sewer Main	7,8	A new sewer main and lift station will be needed in Converse Avenue, north of Sedgwick road.
Retsil Interceptor	9,10,11	The main between Manholes 95 and 101 will need to be increased to provide more capacity.

Capacities of the existing lift stations are discussed in Chapter 4 of the 2007 Comprehensive Sewer Plan. Table 4-4 is included in this report to summarize the lift station capacities.

WASTEWATER FLOW PROJECTIONS

Kitsap County has provided the 2025 population estimates for each sector, based on zoning and proposed land use density. The existing population estimates were based on existing property classifications (i.e. land use) designations assigned to tax parcels within the forecasted service sectors. In particular, the number of dwelling units associated with each residential property classifications was estimated. That estimate was used to assign dwelling unit counts to the tax parcels. An estimate of existing population was produced by utilizing the methodology provided in the 2006 Updated Land Use Capacity Analysis.

Population growth data were provided by Kitsap County and was added to parcels identified as vacant/underdeveloped during land capacity analysis. Allocation of population growth to the vacant/underdeveloped parcels was made according to parcel area and the land use density based from the 2006 Port Orchard UGA Comprehensive Plan land Use map.

These population estimates are consistent with the population estimates used in the 2007 Karcher Creek Sewer District Sewer Comprehensive Plan.

It is assumed that commercial properties would generate 1,500 gallons/acre/day and would be developed by 2025. For residential wastewater flows, it is assumed that each equivalent residential unit (ERU) would house 2.5 people and the design flow would be 150 gallons/day per ERU. Wastewater peak design flow is assumed to be 1.5 (the diurnal peaking factor)

SECTOR	2025 POPULATION	ERUs	DESIGN BASE FLOW, MGD	DESIGN PEAK FLOW, MGD
1	1,073	430	64,500	96,750
2	760	304	45,600	68,400
3	2,000	800	120,000	180,000
4	County Park	0	0	0
5	329	131	19,650	29,475
6	264	106	15,900	23,850
7	1,305	522	78,300	117,450
8	850	340	51,000	76,500
9	1,943	777	116,550	174,825
10	887	355	53,250	79,875
11	683	273	40,950	61,425
12	485	194	29,100	43,650
13	2,494	998	149,700	224,550
TOTALS	13,073	5,230	784,500	1,176,750

Infiltration/Inflow (I/I) is assumed to be 1,000 gallons per sewered acre per day added to the peak base flow. A sewered acre is 80% of the total acre to provide for roads and other uses. It is noted that King County assumes the I/I rate to be 1,800 gallons per sewer acre. Karcher Creek Sewer District has an aggressive inspection schedule for new development and has substantially reduced the King County estimate.

SECTOR	ACREAGE	SEWERED ACREAGE	INFILTRATION/ INFLOW MGD
1	225	180	180,000
2	202	162	162,000
3	402	322	322,000
4	0	0	0
5	92	74	74,000
6	128	102	102,000
7	217	174	174,000
8	141	113	113,000
9	358	286	286,000
10	153	122	122,000
11	223	178	178,000
12	160	128	128,000
13	503	402	402,000
	2804	2243	2,243,000

For worse case conditions, the design flow would be the peak flow plus the Infiltration and Inflow

SECTOR	DESIGN PEAK FLOW MG	INFILTRATION/ INFLOW MGD	TOTAL DESIGN FLOW MGD
1	96,750	180,000	276,750
2	68,400	162,000	230,400
3	180,000	322,000	502,000
4	0	0	0
5	29,475	74,000	103,475
6	23,850	102,000	125,850
7	117,450	174,000	291,450
8	76,500	113,000	189,500
9	174,825	286,000	460,825
10	79,875	122,000	201,875
11	61,425	178,000	239,425
12	43,650	128,000	171,650
13	224,550	402,000	626,550
TOTALS	1,176,750	2,243,000	3,419,750

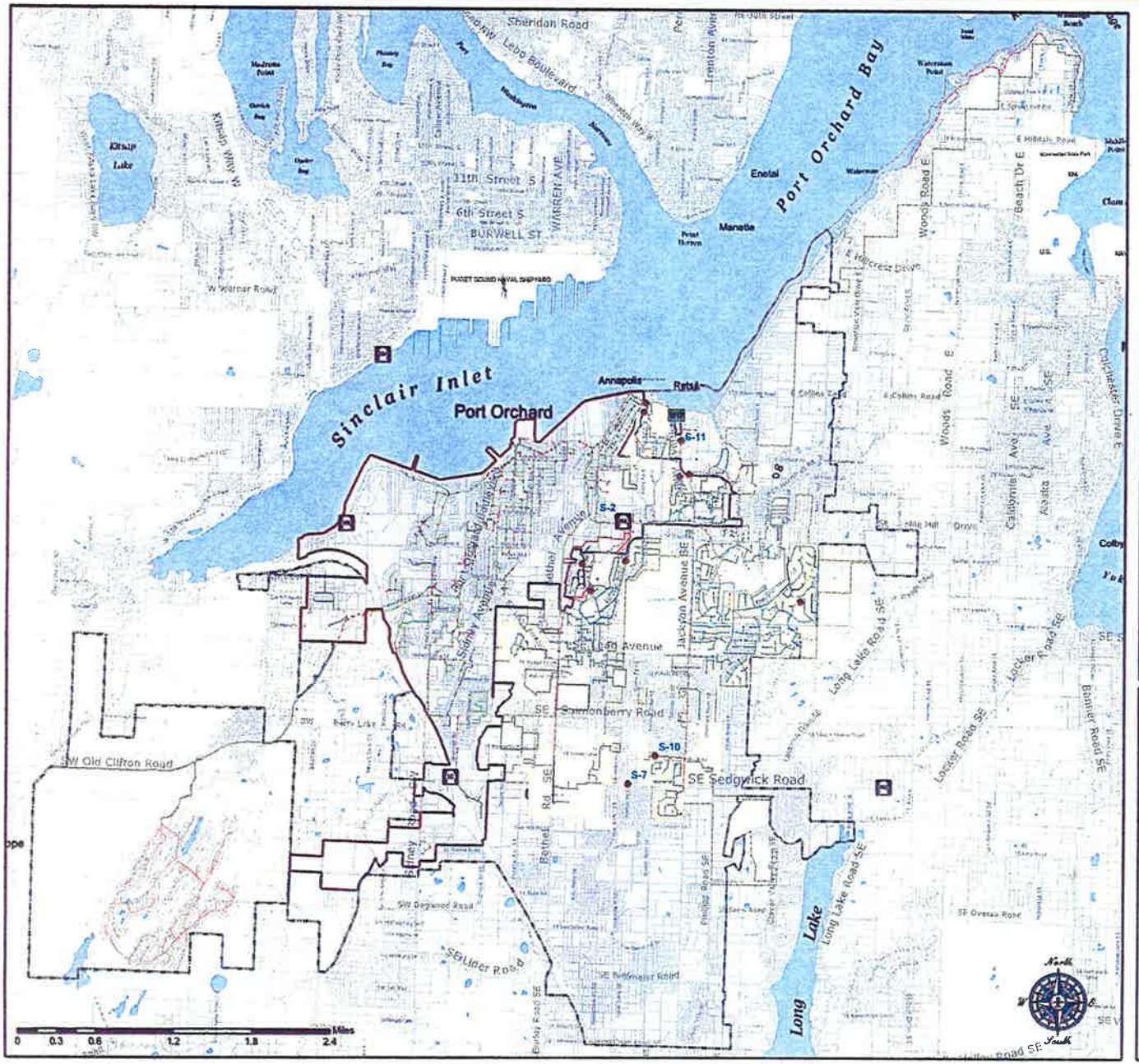
TREATMENT PLANT CAPACITY

The Joint Wastewater Treatment Facility provides wastewater treatment for the community. In 1985, the JWWTF was completed and provided secondary treatment for the community's wastewater. In 2006, the Facility expansion was completed at a cost of $21.5 million and implemented membrane bioreactor technology.

The original plant capacity was 1.8 million gallons per day. With the expansion, the JWWTF capacity is now 4.2 million gallons per day for average daily flow and it can handle peak flows of 16 million gallons per day. In addition to the physical improvements, the JWWTF can still be re-rated by the Department of Ecology to add to this capacity.

JWWTF	DAILY FLOWS MGD	PEAK FLOWS MGD
2007 Flows	1.5	4.2
2025 Additional Flow	.8	--
2025 Additional Peak Flow	--	3.5
Total Future Flows	2.3	7.7
Capacity	4.2	16

Port Orchard Urban Growth Area



Kitsap County Department of Community Development
614 Division Street, MS-36, Port Orchard, Washington 98366
VOICE (360) 337-7181 * FAX (360) 337-4925

- Joint Wastewater Treatment Facility
- Karcher Creek CIP Projects
- Karcher Creek District Boundary
- Unincorporated Urban Growth Area
- Incorporated City
- Karcher Creek Mains to Repair
- Tax Parcels
- Bay, estuary, Puget Sound
- Lake, Pond, Reservoir, Gravel pit or quarry filled with water
- Port Orchard UGA Expansion Area

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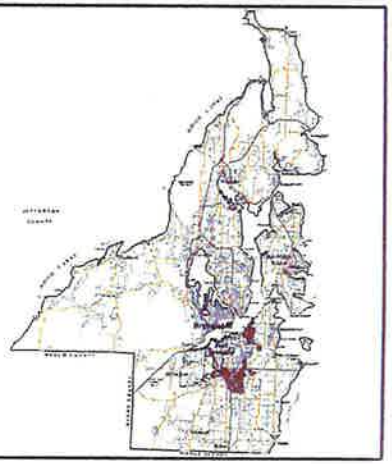
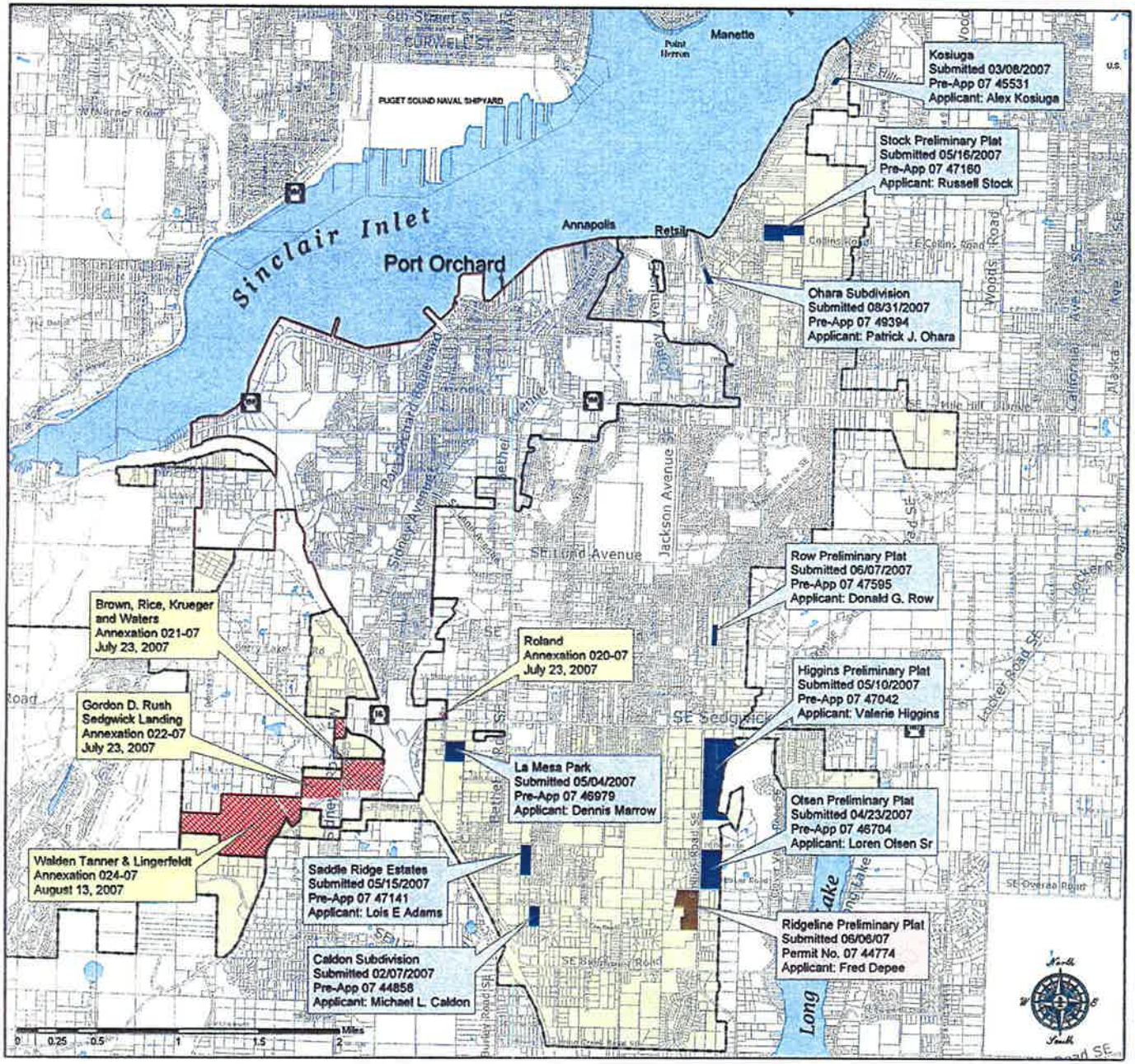
Sewer Data provided by Kitsap County Information Services/GIS in collaboration with Karcher Creek Sewer District and the City of Port Orchard

Map Date: September 2007



Port Orchard Urban Growth Area



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ANNEXATIONS and SITE DEVELOPMENT ACTIVITY

- Unincorporated Urban Growth Area
- Incorporated City
- Tax Parcels
- Pre-Application Activity
- Site Development Activity
- Annexed Parcels

URBAN_GROWTH_AREAS

SYMBOL

- Unincorporated Urban Growth Area
- Incorporated City
- Bay, estuary, Puget Sound
- Lake, Pond, Reservoir, Gravel pit or quarry filled with water

Pre-Application and Site Development activity from Kitsap County Land Information System (LIS). This map is not intended to represent any approval or denial of an application shown.
Annexation information provided by the City of Port Orchard.

Map Date: September 2007

The flows estimated for Karcher Creek Sewer District are approximately one half of the JWWTF total capacity, which allows adequate capacity for the City's future flows.

The I&I estimate is very conservative and probably reflect much higher flows than will be experienced. This method of estimating provides adequate capacity for any future flows due to in-filling during the study period,

RECOMMENDED NEW CONVEYANCE INFRASTRUCTURE

The Sewer District has specific standards and it is assumed that future projects would comply with the established standards. Currently, the District uses PVC pipe with a minimum velocity of 2 feet per second. Construction complies with the Department of Ecology and WSDOT standards. Lift stations are constructed to meet the immediate flows with the ability to expand. Expansion of a lift station can be accomplished with larger pumps or additional wet well capacity. Force mains can be sized for the ultimate capacity or the project can install force mains sized for the immediate needs next to a pipe to serve the ultimate flows.

Each sector is considered independent and will be developed as the market allows. The following are estimates on what infrastructure is needed to serve the future growth areas. Service lines from the homes to the District's sewer main are an expense of the individual lot construction cost and are not included in these estimates.

The sector development is described as follows:

> Sector 1 would require an 8-inch sewer main in Lidstrom Road that would flow to Beach Drive. The flows would be received by a new 0.28 MGD lift station that would pump the wastewater into the 6-inch Beach Drive force main. The developments in Sector 1 would direct the wastewater to the Lidstrom sewer main.
>
> Sector 2 is served by the 5-inch Beach Drive low pressure sewer system. Each new home in this sector would pump its wastewater into the existing force main. The District has an established E-One pump standard and maintains the residential pumps.
>
> Sector 3 would require an 8-inch sewer along Collins Road and Horstman Road. The new sewer main would connect to existing manhole SH28. Due to the topography along this route, at least four lift stations will be required. These lift stations would have capacities of approximately 0.1 MGD, 0.25 MGD, 0.4 MGD and 0.5 MGD. The alternative to the multiple pump stations would be deep excavations and that determination would need to be made at the design time.
>
> Sector 4 is a County park and would not require service by the Sewer District. The areas within the existing UGA will be served by the future Mile Hill Drive sewer main.

Sector 5 would use a new 6-inch sewer main north of Salmonberry and pump station to transport wastewater to manhole 252J at the intersection of Jackson Avenue and Salmonberry Road. The pump station would have a capacity of 0.10 MGD and a 4-inch force main.

Sector 6 includes the County park on the north end of Long Lake. It would be served by an on-site sewer system. The remainder of the sector would be served by a 0.13 MGD pump station and a 6-inch force main. The wastewater would flow to the pump station in 8-inch sewer mains.

Sector 7 wastewater would be pumped to the new sewer main at the intersection of Sedgwick Road and Converse Avenue. The pump station capacity would be approximately 0.29 MGD and would be served by 8-inch sewer mains. The force main would be 6-inches.

Sector 8 wastewater would be pumped to the new sewer main at the intersection of Sedgwick Road and Brasch Road. The pump station capacity would be approximately 0.19 MGD and would be served by 8-inch sewer mains. The force main would be 6-inches.

Sector 9 is a commercial area and its pump station would also serve Sections 10 and 11. Its pump station would have a capacity of 1.0 MGD and an 8-inch force main to the manhole F3. The area would be served by a Bethel Road 8-inch sewer main. Other developments within the sector would be served by approximately 3 pump stations, each with about 0.1 MDG capacity. The force mains would be 6-inches

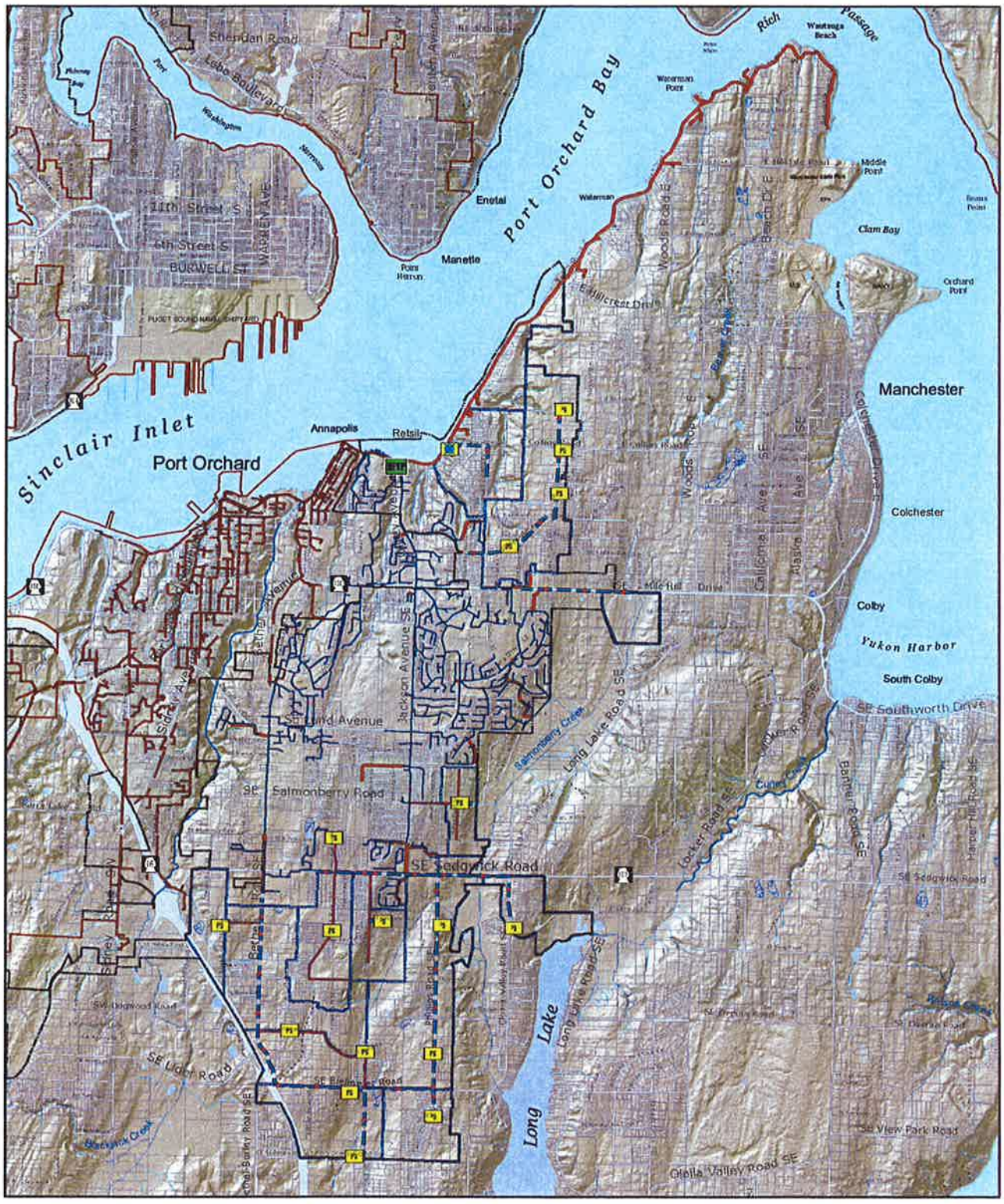
Sector 10 would be served by the extension of the Bethel Road sewer main and the Bielmeier Road sewer main. One 0.20 MGD pump station would direct the wastewater into the Bethel Road sewer main. The area would be developed with 8-inch sewer mains.

Sector 11 would be served by the extension of the Bielmeier Road sewer main, which flows westward. One 0.24 MGD pump station would direct the wastewater into the Bethel Road sewer main. A second 0.10 pump station would serve the southern portion of the sector. The area would be developed with 8-inch sewer mains.

Sector 12 would be served by the east flowing Bielmeier Road sewer main. One 0.17 MGD pump station would direct the wastewater of the existing subdivision into the Phillips Road sewer main. The required force main would be a 4-inches in diameter.

Sector 13 would serve the Phillips Road area and Sector 12. The pump station would have a capacity of 0.9 MGD and an 8-inch force main and pump the wastewater to manhole GR30. The area would be served by 8-inch sewer mains.

Karcher Creek Sewer System



Legend

- Projected Pump Station
- Joint Wastewater Treatment Facility

Projected Sewer Mains

- 6"
- 8"

- Port Orchard Sewer Lines
- Karcher Creek Sewer Pipe
- Karcher Creek Force Main
- Unincorporated Urban Growth Area
- Incorporated City
- Karcher Creek Projected Service Areas
- Tax Parcels

Water/Body Cartographic Feature Code

- Bay, estuary, Puget Sound
- Lake, Pond, Reservoir, Gravel pit or quarry filled with water
- Marsh, wetland, swamp, bog

Fish Habitat Water Type Code

- (S) Designated Shorelines of the State
- (F) Fish Habitat
- (N) Non-fish Habitat
- (U) Unknown, unmodeled hydrographic feature

Kitsap County
Department of Community Development

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* THIS MAP IS NOT A SUBSTITUTE FOR FIELD SURVEY *

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Sewer Data provided by Kitsap County Information Services/GIS in collaboration with Karcher Creek Sewer District and the City of Port Orchard

Map Date: November, 2007

The improvements are summarized as follows:

SECTORS	GRAVITY MAIN (Feet)	FORCE MAIN (Feet)	PUMP STATION
1	5,000	50	1
2	0	1,000	residential
3	10,000	15,000	4
4	0	0	0
5	2,000	3,000	1
6	4,600	5,000	2
7	3,500	2,700	1
8	1,800	1,800	1
9	15,000	8,500	4
10	4500	4,500	1
11	3,000	2,600	2
12	2,000	4,800	1
13	6,000	3,000	2

COST SUMMARIES

The cost estimates are based on the following assumptions and include design and construction. The estimates are based on previous experience with developments within Karcher Creek Sewer District:

Gravity Main:	$120 per foot
Force Main:	$100 per foot
Pump Station:	$300,000 each
Residential pump:	$5,000 each
Construction Contingency:	50%

SECTOR	DEVELOPMENT COST	ESTIMATED ERUs	COST PER ERU
1	$900,000	430	$3,200
2	$100,000	*304	$5,500
3	$3,900,000	800	$7,300
4	0	0	N/A
5	$840,000	131	$9,600
6	$1,652,000	106	$23,400
7	$990,000	522	$2,900
8	$696,000	340	$3,100
9	$3,850,000	777	$7,400
10	$1,290,000	355	$5,500
11	$920,000	273	$5,100
12	$1,020,000	194	$7,900
13	$1,620,000	998	$2,500
TOTAL	$17,478,000.00	5,230	

* indicates the homes would be served by residential sewer pumps

It is important to note that the above costs are not all-inclusive and should not be used for budgeting. For instance, Sectors 11 and 12 cannot affordably connect to the District system until Sections 9, 10, and 13 are connected. It is also important to note that District fees are typically about $6,500 per home. However, Section 2 and some homes in Section 1 would also have an additional District fee of $10,300 per home. In addition to the above costs, the above figures do not reflect the contractor's costs for individual connections.

The analysis indicates that sewer extension to the expanded UGA is affordable. For instance, with a development cost of about $7,000 per ERU, connection fees of $6,500, and home owner expenses, of $5,000, the cost per ERU is $18,500 which is a reasonable cost for sewer in 2007 dollars.

Sector 6 has a high cost per home due to the relatively small amount of people funding a complex sewer extension.

POTENTIAL FUNDING STRATEGIES

The above costs for sewer infrastructure suggest that the construction is financially feasible. In addition to the above costs, the homeowner would also pay for the connection from the home and/or plat to the District main and any applicable sewer connection fees.

Karcher Creek Sewer District typically requires the Developer to finance sewer main extensions. When the District does decide to extend the collection system, it will attach an assessment on those future connections that benefit from the specific improvement in order to avoid the District subsidizing growth.

Historically, federal and state grant programs were available for financial assistance; however, these assistance programs have been mostly eliminated or replaced by loan programs. Remaining miscellaneous grant programs are generally lightly funded and heavily subscribed. Nonetheless, the benefit of even low-interest loans makes the effort of applying worthwhile. State programs identified as potential funding sources for the utility improvements set forth in this comprehensive plan are summarized below.

Public Works Trust Fund

The Public Works Trust Fund (PWTF) is a commonly used, low cost revolving loan fund established by the 1985 state legislature to provide financial assistance to local governments for public works projects. Eligible projects include repair, replacement, rehabilitation, reconstruction, or improvement of eligible public works systems to meet current standards for existing users. With recent revisions to the program, growth-related projects consistent with 20 year projected needs are now eligible.

Eligibility

The applicant must be a local government, such as a city, county, or special purpose utility district, and have an approved long-term plan for financing

its public works needs. Local governments must compete for PWTF dollars since more funds are requested each year than are available. The Public Works Board evaluates each application and transmits a prioritized list of projects to the legislature. The legislature then indicates its approval by passing an appropriation from the Public Works Assistance Account to cover the cost of the approved loans. Once the Governor has signed the appropriations bill into law, the local governments receiving the loans are offered a formal loan agreement with the appropriate interest rate and term, as determined by the Public Works Board.

Interest Rate and Local Match

PWTF Loans are available at interest rates of .5 percent, 1 percent, and 2 percent, with the lower interest rates given to applicants who pay a larger share of the total project costs. The loan applicant must pay a minimum of 5 percent towards the project cost to qualify for a 2 percent loan, 10 percent for a 1 percent loan, and 15 percent for a .5 percent loan. The useful life of the project determines the loan term up to a maximum of 20 years.

Maximum Loan Amount and Availability of Fund

The maximum loan amount is $10 million per jurisdiction per biennium. If the District has applied for additional loans from PWTF they will only be eligible for a total of $10 million for the entire District. In 1999, $76.16 million was available for applications of $145.4 million.

Community Economic Revitalization Board

Managed by the Department of Community Trade and Economic Development, CERB is strategically focused to help business and industry create and retain jobs in partnership with local communities. CERB's primary focus is to provide low-interest loans or, in unique circumstances grants, to local governments to help finance the construction of public facility projects necessitated by private sector development. Job creation and/or retention are the primary goals of the CERB program.

Eligibility

Washington State counties, cities, towns, port districts, special purpose districts, and municipal corporations may apply for CERB funding. Eligible public facilities include bridges, roads, domestic and industrial water, sanitary sewer, storm sewer, railroad spurs, electricity, natural gas, buildings or structures and port facilities. CERB funds public infrastructure that will result in specific private development or expansions in manufacturing, production, food processing, assembly, warehousing, industrial distribution, recycling facilities, or businesses that substantially support the trading of goods and services outside of the state's borders. Applications must include evidence that a private development or expansion is ready to occur and will only occur if CERB funds are provided. Applicants must demonstrate that no other timely source of funds are available at reasonably similar rates.

Interest Rate

Interest rates generally match the most current rate of Washington State bonds but do not exceed 10 percent.

Maximum Loan Amount and Availability of Funds

The maximum loan amount is $1 million and 80% of the CERB request or $300,000, which ever is the lesser amount, for a grant. In 1997-1999 biennium there was $10 million available.

Community Development Block Grant (CDBG) Program

A federal government program administered by HUD, the CDBG program provides grants and loans for infrastructure improvements, including water projects, for business development that create or retain jobs for low and moderate-income residents. Since 1974 CDBG has been the backbone of improvement efforts in many communities, providing a flexible source of annual grant funds for local governments nationwide. Because of Kitsap County's size, funding comes directly from HUD. The District would apply to Kitsap County.

Eligibility

All cities and towns are eligible. The projects should (1) benefit low- and moderate-income families; (2) prevent or eliminate slums or blight; or (3) meet other urgent community development needs. These projects can include economic development projects or wastewater treatment systems for instance.

Maximum Loan Amount and Availability of Funds

In 2000, Kitsap County received $1,422,000 in grants. These allocations are from the HUD office.
The Department of Ecology Water Quality Financial Assistance Program sponsors four grant and loan programs:
The Centennial Clean Water Fund- provides grants and low-interest loans to construct wastewater treatment facilities and fund-related activities to reduce nonpoint sources of water pollution.
State Revolving Fund Loans – provides low-interest loans to construct wastewater treatment facilities and related activities, or to reduce nonpoint sources of water pollution.
Section 319 Nonpoint Sources Grants Program – provides grants to reduce nonpoint sources of water pollution.

Eligibility

Either the City or the District would be eligible. While most of the funding goes to wastewater programs, projects such as development and implementation of groundwater and wellhead protection programs are included. All DOE loans require a Facilities Plan which is more comprehensive than an engineering plan. This is an added expense. There is only one application for all 3 loans and grant programs.

Interest Rate

0-5 years - Interest is 0 percent for a 5 year term and if the project will be complete within two years, otherwise it is based on 40 percent of the market rate (in fiscal year 2000 this was 2.1 percent)
6-14-year term interest rate is based on 60 percent of the market rate (in fiscal 2000 this was 3.2 percent)
15-20 year term – interest is based on 75 percent of the market rate (in fiscal year 2000 this was 4 percent)

Maximum Loan amount and availability

The complete project costs is eligible for loan funding. Grants for point source facilities are available for up to 50 percent of eligible project costs. Grants for nonpoint source activities are available for up to 75 percent of eligible project costs.
Funding is generally limited to 50 percent and comes in the form of either a grant or low interest loan (0 percent for up to 5 years, increasing to 4.8 percent for 15 to 20 years).
In fiscal year 2001 the Centennial Program will have approximately $11.7 million in competitive grants and loans for point source and nonpoint source projects. Another $5 million is available in grants to facilities projects located in small towns.
Approximately $1.8 million more will be available as competitive grants for nonpoint source projects from Section 319 in 2001.
The State Revolving Fund should have approximately $62 million for low-interest loans in 2001.

USDA – Rural Development's Water and Wastewater Program

Rural Development provides grants and loans for water and waste disposal facilities in rural areas and towns of up to 10,000 people.

Eligibility

The City and District would be eligible for assistance from the USDA. Applicants must be unable to obtain needed funds from commercial sources at reasonable rates and terms. Applicant must also have the legal capacity to borrow and to repay loans, to pledge security for loans, and to operate and maintain the facilities. Grants may be provided when necessary to reduce user costs to a reasonable level. The grants can cover up to 75 percent of eligible facility development costs. Construction of the Joint Wastewater Treatment Plant is covered under the eligible projects. Main point of eligibility is the inability to find funding from any other source (i.e. revenue bonds or bank loans). Median household income according to 1990 census is $22,000 below the State' $32,000 statewide median household income. According to their 1990 census the City would be eligible for 45% grant funding. If the project is for health or sanitary reasons, the project would be 75% grant eligible. Typically 50% grant is

the maximum amount awarded. The awarding of grants are dispersed to help as many communities as possible.

Interest Rate

Three interest rates are used. The interest rates are set periodically based on an index of current market yield for municipal obligations. Poverty rate is currently 4.5 percent and applies when the purpose of the loan is to upgrade existing facilities or construct new facilities required to meet applicable health or sanitary standards; and the median household income (MHI) of the area is below the poverty line of the family of four or below 80 percent of the statewide non-metropolitan MHI. Market rate is the average of the Bond Buy index and applies to applicants where the MHI exceeds the SNHI. The intermediate rate is the poverty rate plus half the difference between the poverty rate and the market rate, not to exceed 7 percent (currently 5.0 percent). The City would be eligible for the intermediate interest rate unless the City can demonstrate a health or sanitary risk.

Maximum Loan Amount and Availability

Washington State allocation for water and wastewater development in 2001 is $11 million in loans and $6 million in grants. Kitsap County is an under served area (has not received utility funding in more than 5 years).

EPA Sustainable Development Challenge Proposals

These grants were given to communities who demonstrated an innovative way to solve problems with environmental impacts. Programs ranged from reducing chemical use in various industries to novel septic disposal programs. The program is in its last year of funding.

Each of these programs offer potential opportunities for below-market project funding, as compared to traditional revenue bond funding. However, as noted above, many of the loans programs offer limited benefit in terms of interest rate, while potentially introducing additional costs to comply. An exception to this is the PWTF program, which offers low interest rates without onerous qualification requirements. With available District funds easily providing the local match, a 0.5% loan might be obtained. The benefit in reduced interest costs is comparable to receiving a 30% grant. In comparison, the Centennial and SRF programs offer limited financial benefit although still attractive compared to revenue bonds. Among the possible grant programs, Rural Development may provide an opportunity, depending on income levels in the service area. However, grants offered in this program are tied to loans, often with at or near market rates. Thus, depending on the grant percentage, the net benefit of the grant/loan package may be no better than a PWTF loan. CDBG grants are typically focused on low-income areas while CERB focuses on job creation. Although the census shows the District as a low-income area, the projects may have difficulty displaying job creation.
In the absence of such subsidized funding sources, the most likely sources of capital funding are existing reserves and revenue bond debt. While revenue bonds may be considered the resource of last resort, they may be an appealing

alternative for at least three reasons. First, the majority of the capital costs associated with this plan are intended to serve growth. Assuming a long-term (20 or more year) revenue bond term, debt funding will spread the cost of growth across rates for many years, thus ensuring that the new customers pay for a share of the capital costs that they are imposing. Second, revenue bonds will allow the District to soften the near-term impact of these capital costs by spreading costs over the long-term. Finally, revenue bonds can offer tremendous flexibility not found in other debt instruments. For example, a bond issue may be structured all or in part as term bonds, which require only interest payments for a number of years with "balloon payments" of principal at specific points in the amortization schedule. Such a structured debt can be especially appealing for utilities that are experiencing high growth rates. A balloon payment structure could further reduce immediate rate impacts by allowing the District to accumulate connection charges in anticipation of balloon payments at five-, ten-, or 20-year intervals. Term bonds are similar to balloon payments. In the event that growth failed to occur, then rates could be adjusted to meet payment obligations.
There are also several disadvantages to revenue bonds, which is why they are the resource of last resort. If the growth does not occur, balloon payments and term bonds may leave the utility with large liabilities in the future years without an adequate reserve. Another draw back of revenue bonds is that interest rates will be higher than what the District could obtain from the programs listed above. The greatest disadvantage is the need for the District to demonstrate an ability to meet the debt service coverage requirement. Bond coverage is a legal requirement binding the utility or utilities to demonstrate that revenues exceed expenses by a multiple of the debt service payment. This multiple is usually a ratio such as 1.25. For the District, their parity revenue bond would require a 1.1 debt service coverage ratio.

Nevertheless, revenue bonds are perhaps the most common source of funds for construction of major utility improvements. To issue revenue bonds, the District will be required to commit to certain security conditions related to repayment, specifically reserve and coverage requirements. These conditions are included in the bond resolution to be adopted by the District, and essentially impose certain conservative financial practices on the District, as a way to make the bonds more secure.

The reserve requirement commits the District to maintain a bond reserve that could be used to meet payments if the utility is incapable of doing so. Typically, this requirement is equal to one year of debt service and can be funded from the bond proceeds (essentially borrow an additional amount to set aside in reserve) or from rates over 5 years. Since the reserve can be invested and earns interest, the net cost of providing the reserve is relatively small.

The coverage requirement commits the District to set rates and charges at a level which exceeds the amount needed to pay expenses and debt service by at least a certain factor, called the coverage factor. The coverage factor is expressed as a multiplier of debt service. With a 1.25 coverage factor, rates must be set at a level that at least meet operating expenses, plus the revenue bond debt service, plus an additional 25% of revenue bond debt service. The purpose of the requirement is to help assure bondholders that the District will take necessary actions to meet its repayment obligations, particularly if poor financial

performance occurs, and will continue to have resources to re-invest in District facilities.

The revenue bond coverage factor can require higher rates than would otherwise be necessary, in order to meet the target. However, the scope of the coverage test is very specific, as defined in bond ordinance, and generally limited. For example, the requirement only considers operating expenses (capital outlays are not counted) and only includes revenue bond debt service or other debt issued on par with the revenue bonds (thus other loans or obligations would generally be excluded from the test).