

Revised GFCs Adopted January 23, 2018

**TECHNICAL MEMORANDUM**

TO: WHATCOM COUNTY WATER DISTRICT 13  
FROM: ROGER KUYKENDALL, P.E.  
DATE: ~~MAY 22, 2017~~  
SUBJECT: NEW SEWER GENERAL FACILITIES  
CHARGE  
WHATCOM COUNTY WATER  
DISTRICT 13, WASHINGTON  
G&O #17509.00

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This technical memorandum provides the results of the calculation of the General Facility Charge (GFC) for the sewer utility. In accordance with RCW 57.08.005, a Right-to-Connect or “General Facilities Charge” may be charged to a property owner seeking to connect to the system in order that those property owners bear their equitable share of the cost of the system. A GFC includes a pro rata share of the cost of existing facilities (existing facility component) and facilities planned for construction within the next 10 years and contained in an adopted comprehensive plan (future facilities component), and other costs borne by the district which are directly attributable to the improvements required by property owners seeking to connect to the system. The cost of existing facilities cannot include portions of the system that were donated or paid for by grants. Also, the connection charge may include interest charges applied from the date of construction of the system until the connection or for a period not to exceed 10 years, whichever is shorter.

The existing facility component offsets the historical contributions from existing customers used to acquire existing assets of benefit to a new customer. The future facility component contributes toward capital improvement costs needed to serve future customers and is intended to minimize the impact to existing customers for the construction of facilities that may only be required due to growth. If new facilities are included in a 10-year capital improvement program (CIP) that replace existing facilities, the cost of the older facilities must be removed from the calculation. GFCs cannot be used to pay operating and maintenance costs.

**EXISTING FACILITY COMPONENT**

Known original (1977) facility costs are provided in the attached Table 1. These costs are derived from the 1987 complaint filed in Whatcom County Superior Court regarding a class action lawsuit against the Peaceful Valley developers and the District. The allowable accrued annual interest on the original assets is 8.5 percent, based upon the



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\$1,190,393

\$668,222

bond interest rate identified in the complaint. Total eligible GFC costs for the original facilities equal ~~\$1,454,843~~.

Known new assets and facilities, added since 1977, are provided in the attached Table 2. The allowable accrued annual interest on the new assets is approximated at 5.0 percent, based upon current commercial interest rates. Total eligible GFC costs are ~~\$669,744~~.

### FUTURE FACILITY COMPONENT

The 2012 Comprehensive Sewer Plan includes a CIP that identifies several different types of capital projects:

- Capacity Improvement – These projects are intended for the sole purpose of increasing existing system capacity to accommodate growth and are eligible for the GFC calculation.
- Regulatory – Money spent on activities or projects to meet regulatory requirements is an eligible cost.
- Repair and Replacement – These projects are not eligible for the GFC calculation unless they replace an existing facility with a facility that has an increased capacity. However, the existing facility must be removed from the existing facility cost basis.
- Growth-Related/Developer Extensions – These projects are for the sole purpose of providing sewage collection and conveyance for developing properties. They are typically funded entirely by developers, becoming donated facilities, and hence are not eligible for the GFC calculation.

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Table 3 identifies the capital projects scheduled for completion over the next 10 years. The total eligible GFC costs are estimated at \$9,913,022.

### GFC CALCULATION

The pro rata share of the cost of the existing facilities is determined by dividing the calculated cost of existing facilities **that will benefit future customers** by the number of current customers. The current number of customers (residential customer equivalent – RCE) is 393.

The pro rata share of the cost of the future facilities is determined by dividing the calculated cost of future facilities **that are required to serve growth** by the number of



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customers that component is expected to serve (existing and future customers). With the exception of the new WWTP, all of the eligible projects in the 10-year CIP are considered to serve growth for the number of RCEs anticipated in the tenth year (2027). It is our understanding that the RCE projections in Table 3.3 of the Comprehensive Sewer Plan were assembled prior to 2010, and were not updated prior to the Plan's adoption in 2012. Since adoption, there has been very little growth within the District, with the existing number of RCEs equal to the number expected in 2010 (393). Therefore, the GFC calculation will look ahead 10 years and use the 2021 RCE projection (477) as the number of anticipated RCEs at the end of the current 10-year period. The new WWTP is designed to serve up to 1,200 RCEs, and this will be the number of RCEs used to distribute equitable cost for the new WWTP.

\$4,729

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Table 4 provides a breakdown of the GFC calculation for the existing and future components. The resulting GFC is calculated as ~~\$5,406~~ (existing component) plus \$8,985 (future component) for a total GFC of ~~\$14,391~~.

\$13,714

**RECOMMENDATION**

We recommend the District consider for adoption a GFC at or below the GFC calculated and presented Table 4. We also recommend that the calculation be reviewed by the District's Attorney.

**Table 1 - Revised**  
**Original Sewer Facilities**  
**Whatcom County Water District 13**

Original Facilities	Initial Cost (1)	Year Completed	Allowable Interest (2)	Total Existing Cost Basis	Facility to Benefit New Customers?	Eligible Existing GFC Cost Basis (3)
Division 1 Collection System	\$ 143,480	1977	\$ 121,958	\$ 265,439	Yes	\$ 265,439
Division 1 Engineering, Financing, Admin	\$ 44,173	1977	\$ 37,547	\$ 81,720	Yes	\$ 81,720
Collection System to Serve Lots on Road from Div #1 to WWTP	\$ 44,100	1977	\$ 37,485	\$ 81,585	Yes	\$ 81,585
WWTP (4) (5)	\$ 308,213	1977	\$ 261,981	\$ 570,194	No	0
Effluent Disposal Field	\$ 54,472	1977	\$ 46,301	\$ 100,773	Yes	\$ 100,773
Effluent Force Main	\$ 10,668	1977	\$ 9,068	\$ 19,736	Yes	\$ 19,736
Sewer Trunk Lines	\$ 81,677	1977	\$ 69,425	\$ 151,102	Yes	\$ 151,102
Comp Plan, Engineering, Financing, Admin	\$ 264,886	1977	\$ 225,153	\$ 490,039	Yes	\$ 490,039
<b>Total for Original Facilities</b>	<b>\$ 951,669</b>			<b>\$ 1,760,587</b>		<b>\$ 1,190,393</b>

NOTES:

(1) Initial costs based upon 1987 Whatcom County Superior Court complaint

(2) Allowable interest based upon 8.5% bond interest stated in Superior Court complaint

(3) Eligible costs are based upon existing facilities that will benefit future development

(4) There are some minor WWTP costs that will benefit future development (i.e., land, lagoons, control building, etc.), but these costs have not been determined

(5) WWTP will be replaced with new WWTP

**Table 2 - Revised**  
**New Sewer Assets**  
**Whatcom County Water District 13**

New Assets	Initial Cost (1)	Year Completed	Allowable Interest (2)	Total New Asset Cost Basis	Asset to Benefit New Customers?	Eligible New Asset GFC Cost Basis (3)
Monitoring Well "D"	\$ 5,004	2008	\$ 2,252	\$ 7,255	Yes	\$ 7,255
WWTP Influent Flow Meter (5)	\$ 31,398	2011	\$ 9,419	\$ 40,817	No	N/A
2011 WWTP Engineering Report	\$ 15,000	2011	N/A	\$ 15,000	Yes	\$ 15,000
2012 Sewer Comprehensive Plan	\$ 100,000	2012	N/A	\$ 100,000	Yes	\$ 100,000
Developer Extension Manual	\$ 2,500	2012	N/A	\$ 2,500	Yes	\$ 2,500
WWTP Influent LS	\$ 133,073	2014	\$ 19,961	\$ 153,034	Yes	\$ 153,034
WWTP & GVLS RPBA (5)	\$ 19,151	2014	\$ 2,873	\$ 22,023	No	N/A
Infiltration and Inflow Study (4)	\$ -	2014	N/A	\$ -	Yes	\$ -
Waste Discharge Permit Required Studies (4)	\$ -	2015	N/A	\$ -	Yes	\$ -
Existing Cash	\$ 390,433	2017	N/A	\$ 390,433	Yes	\$ 390,433
<b>Total New Assets Since 1977:</b>	<b>\$ 696,558</b>			<b>\$ 731,062</b>		<b>\$ 668,222</b>

NOTES:

- (1) Initial costs based upon actual data
- (2) Allowable interest assumed at 5.0% based upon current commercial interest rates. Not applicable to non-facility assets.
- (3) Eligible costs are based upon new assets/facilities that will benefit future development
- (4) Cost for I/I Study and WD Permit Studies to be determined

**Table 3**  
**Sewer 10-Year Capital Improvement Projects**  
**Whatcom County Water District 13**

<b>Project</b>	<b>2011 Estimated Cost (1)</b>	<b>Schedule (2)</b>	<b>2017 Estimated Cost (3)</b>	<b>To Serve Future Growth in next 10 years?</b>	<b>Eligible Future GFC Cost Basis</b>
Easements for Existing Facilities	\$ 10,000	2012	\$ 11,941	Yes	\$ 11,941
Easement for Future Facilities	\$ 10,000	2014	\$ 11,941	Yes	\$ 11,941
Replace Comminutor	\$ 81,000	2015	\$ 96,718	No	\$ -
Install New Floating Aerator (4)	\$ 18,000	2015	\$ 21,493	Yes	\$ 21,493
Reline Lagoon No. 2 (5)	\$ 98,000	2017	\$ 117,017	Yes	\$ 117,017
Comprehensive Sewer Plan Update	\$ 65,000	2017	\$ 77,613	Yes	\$ 77,613
WWTP Upgrade to MBR	\$ 7,822,000	2018-2020	\$ 9,339,877	Yes	\$ 9,339,877
Replace Influent Pump Station Force Main (4)	\$ 121,000	2019	\$ 144,480	Yes	\$ 144,480
Reline Lagoon No. 3 (5)	\$ 98,000	2019	\$ 117,017	Yes	\$ 117,017
Refurbish Chlorine Equipment (4)	\$ 20,000	2020	\$ 23,881	Yes	\$ 23,881
Purchase Additional Drainfield Property	\$ 40,000	2025	\$ 47,762	Yes	\$ 47,762
Reserves for Annual Maintenance	\$ 5,000	Annually	\$ 5,970	No	\$ -
<b>Total Capital Projects Cost:</b>	<b>\$ 8,388,000</b>		<b>\$ 10,015,711</b>		<b>\$ 9,913,022</b>

NOTES:

- (1) Estimated costs based upon 2011 WWTP Engineering Report and 2012 Comprehensive Sewer Plan
- (2) Schedule based upon 2012 Comprehensive Sewer Plan
- (3) 2017 estimated costs based upon 3 percent annual cost escalation
- (4) Required to serve growth through Phase 1 WWTP Improvements
- (5) Item will be re-used with new WWTP

**Table 4 - Revised**  
**Sewer GFC Update**  
**Whatcom County Water District 13**

General Facilities Charge Calculation	10 Year CIP: Year 2021 RCEs (477) WWTP: Capacity RCEs (1,200)
Existing General Facility Component	
Original Plant in Service (incl. interest)	\$1,760,587
Less: Facilities replaced in 10-Year CIP (1)	(\$570,194)
New Assets/Facilities added since 1977 (2)	<u>\$668,222</u>
Total Existing Asset Cost Basis	\$1,858,615
Existing RCEs (2017)	393
<b>Existing Facility Charge per RCE</b>	<b>\$4,729</b>
Future General Facility Component	
New WWTP (Capacity = 1,200 RCEs)	\$9,339,877
Other 10-Year CIP to Serve Growth (3)	<u>\$573,145</u>
Total Future Cost Basis	\$9,913,022
RCEs for WWTP Costs (4)	1,200
RCEs for Other 10-Year CIP to Serve Growth (5)	477
<b>Future Facility Charge per RCE</b>	<b>\$8,985</b>
<b>TOTAL GFC PER RCE</b>	<b>\$13,714</b>

NOTES:

- (1) Original WWTP to be replaced within 10-Year period except control building and lagoons
- (2) New facilities includes engineering studies and items to be re-used with new WWTP
- (3) See CIP Table
- (4) Existing and future customers benefit from new facilities
- (5) Reflects 10 years of growth from current RCE count, based on Comp Plan growth rate (1.78%)