

Spokane County
Division of Utilities

Final Report for

WASTEWATER
UTILITY
RATE STUDY
UPDATE

April, 2012

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Section 1: STUDY FRAMEWORK

1.A. INTRODUCTION

In February 2011, the Spokane County Division of Utilities (County) engaged FCS GROUP to complete a comprehensive Wastewater Utility Rate Study Update. FCS GROUP most recently completed a rate study for the County in 2009, developing a proposal for 2010 – 2012 rates. Since the completion of the prior study, a number of things have changed:

- ◆ The economy has not recovered as originally anticipated; system growth has continued to lag behind prior projections.
- ◆ The County has a more firm estimate of operating and capital costs for the new Spokane County Water Reclamation Facility (SCRWRF).
- ◆ The County has received an updated estimate of its share of costs associated with the Riverside Park Water Reclamation Facility (RPWRF) from the City of Spokane.
- ◆ The County has continued to address the financial implications of complying with the Spokane River Dissolved Oxygen Total Maximum Daily Load (TMDL) requirements imposed on its wastewater utility.
- ◆ The City of Spokane Valley has elected to use its share of Aquifer Protection Area (APA) Revenue to fund local stormwater projects, rather than to use its share to fund wastewater utility costs.

Given that each of these factors impacts the results of the previous study, County staff requested a rate update to incorporate these changes and evaluate the sufficiency of existing rate levels to meet current and future wastewater utility financial obligations.

1.B. SCOPE OF WORK

The primary goal of the wastewater rate study is to develop a multi-year strategy of rates and charges that will enable the County to meet the financial obligations of its wastewater utility. The scope of the project includes the following key elements:

- ◆ Update the Sewer Service Charge for a multi-year period
- ◆ Update capital costs
 - Identify capital requirements
 - Identify and evaluate funding sources
 - Identify need for and amount of any new debt proceeds

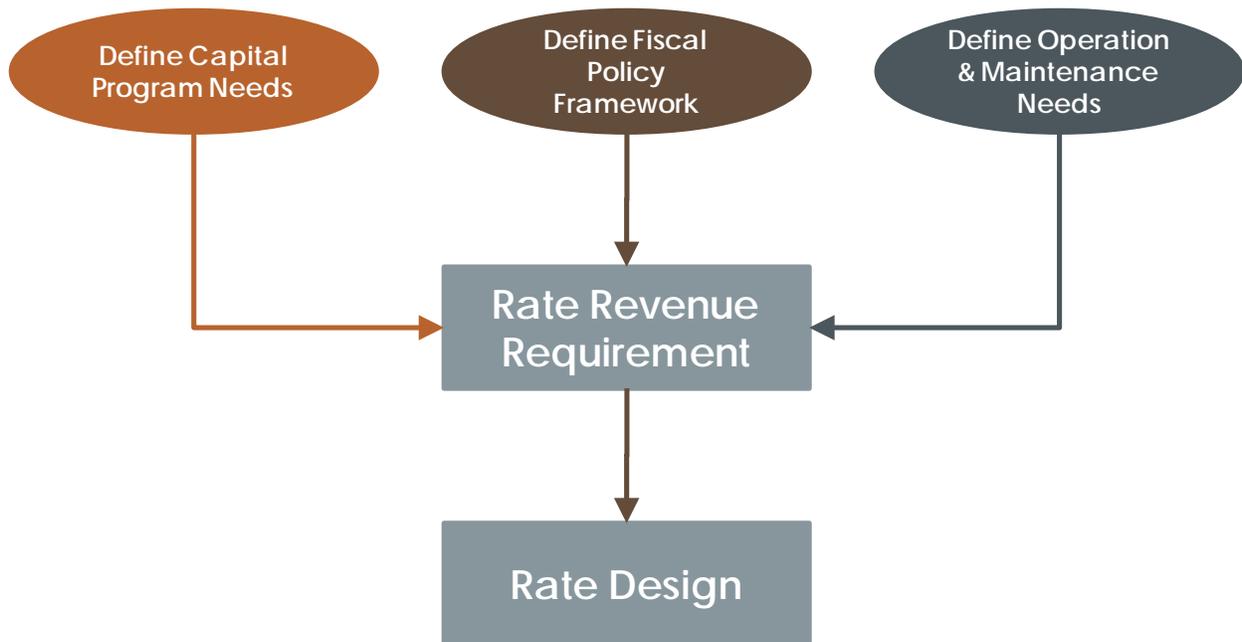
- ◆ Update the Wastewater Treatment Plant (WWTP) Charge
- ◆ Review Fund Balances
 - Project Operating Fund and Capital Fund activity and verify compliance with minimum balance requirements
- ◆ Design a rate strategy to capture the required revenue stream
- ◆ Present study process, assumptions, and recommendations to the Board of County Commissioners (BoCC)

These scope elements are addressed throughout each phase of the work described in this report. It is worth noting that the original project scope included the development of strength-based commercial wastewater rates as part of the cost-of-service analysis – however, based on direction received from County staff, this task has been deferred to the next wastewater rate update.

1.C. RATE STUDY PROCESS

Exhibit 1.1 contains a graphical overview of the rate study process.

EXHIBIT 1.1 – OVERVIEW OF THE RATE STUDY PROCESS



The following sections provide an overview of the major analytical methods employed by FCS GROUP to complete this work.

1.C.I Revenue Requirement Analysis

The revenue requirement analysis is the “keystone” of a long-range utility financial plan and the first step involved in developing cost-based rates and charges. It focuses on identifying the

amount of revenue needed to meet the utility's financial obligations, which include:

- ◆ Operation and maintenance of the County's collection system and the new Spokane County Regional Water Reclamation Facility (SCRWRF)
- ◆ Payments to the City of Spokane for wastewater treatment at the Riverside Park Water Reclamation Facility (RPWRF)
- ◆ Administration and overhead
- ◆ Debt service
- ◆ Policy-based reserve funding requirements

From this foundation, utility rate structures can be adjusted to meet the defined annual and long-term funding targets as well as the County's rate-setting objectives.

1.C.II. Rate Design Analysis

The rate design analysis develops proposed rates that link the cost recovery to either the fixed or volume-based portion of the rate. The overall objective is to recover the appropriate amount of revenue from each customer class and to recover the revenue necessary in total to fully fund the utility's costs.

Each of the major rate study elements discussed above was completed as part of the study for the County. Each study element's assumptions, findings and recommendations will be addressed in this report.

Section 2: REVENUE REQUIREMENTS

2.A. INTRODUCTION

The revenue requirement analysis identifies the total program cost and evaluates the sufficiency of current revenue levels. Although the revenue requirement forecast covers a 20-year period for trending purposes, the analysis focuses on a planning period of 2012 – 2016 for rate-setting purposes. The County’s wastewater utility is currently sustained by three main funding sources:

- ◆ **Existing customer charges:** Existing customers pay two monthly charges that reflect the ongoing cost of providing service:
 - Sewer Service Charge: The Sewer Service Charge is generally based on the cost of operating and maintaining the wastewater system. The revenue that it generates primarily funds operating expenses, but is also used to fund specific reserves (Operating Fund, replacement reserves).
 - Wastewater Treatment Plant (WWTP) Charge: The WWTP Charge is generally based on the utility’s capital costs, which include debt service, capital projects (including upgrades at the RPWRF and the SCRWRF), and funding for specific reserves (Capital Funds).
- ◆ **New customer charges:** Two main charges generate revenue from new customers:
 - General Facilities Charge (GFC): The GFC is assessed to new customers at the time of connection based on a proportionate share of the cost of system capacity. It applies to new development, customers added through the Septic Tank Elimination Program (STEP), and other properties converting from onsite systems to the County’s system.
 - Capital Facilities Rate (CFR): In addition to the GFC, local construction charges are assessed to properties located within the STEP and to properties making connection to lateral sewers constructed with County funding. The CFR for specific STEP project areas is established annually by the County, based on the level of capital expenditures necessary to install sewer systems in areas within the STEP.
- ◆ **External funding:** The County has pursued (and continues to pursue) funding from a variety of external sources to help meet the financial obligations of its wastewater utility. It has acquired funding from low-interest State Revolving Fund (SRF) loans, general obligation (G.O.) bonds, revenue bonds, a Department of Ecology (DOE) Grant, and the Aquifer Protection Area (APA) Fee.

These funding sources serve to generate the amount of revenue required to meet the County’s total wastewater program costs. The methodology and key assumptions used in the development of the revenue requirement analysis are discussed below in further detail.

2.B. FISCAL POLICIES

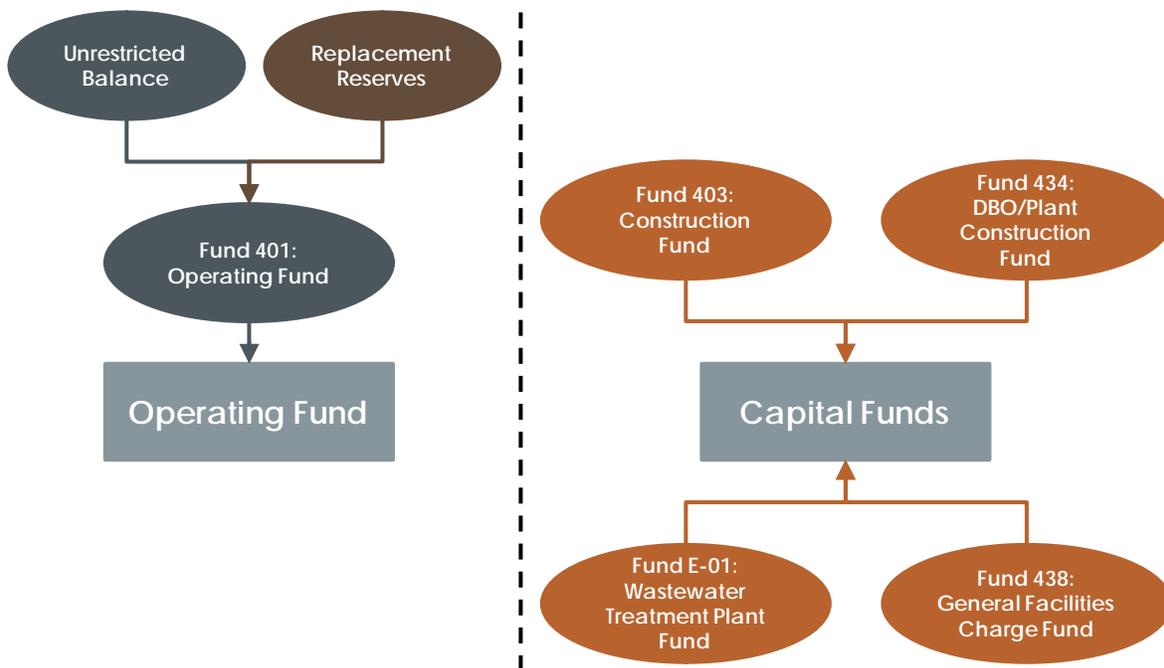
This analysis is based on a framework of fiscal policies that promote the financial integrity and stability of the County’s wastewater utility. The key fiscal policy assumptions are discussed in further detail below:

2.B.1 Utility Reserves

Like any business, a municipal utility requires certain minimum levels of cash reserves to operate – these reserves address variability and timing of expenditures and receipts, as well as occasional disruptions in activities, costs or revenues. Given the County’s responsibility to provide an essential service at a certain standard, protection against financial disruption is even more important than it would be for a private sector or non-essential counterpart.

In addition to protecting the utility against financial disruption, a defined reserve structure serves to maintain appropriate segregations of funds and promote the use of resources for their intended purposes. The simplest utility reserve structure differentiates between “capital reserves” that contain resources restricted for capital purposes (such as GFCs and bond proceeds) and “operating reserves,” which provide resources to meet ongoing cash flow needs. **Exhibit 2.1** illustrates how this analysis accounts for the County’s wastewater utility funds within this general structure:

EXHIBIT 2.1 – OVERVIEW OF THE UTILITY RESERVE STRUCTURE



The County's Operating Fund (Fund 401) includes both unrestricted and restricted funds.

The *unrestricted* portion of the fund exists to maintain financial viability of the utility given variations between revenue and expenditure cycles. Based on prior discussions with County staff, this analysis assumes a minimum balance of 10% (37 days) of annual operating expenses for the unrestricted portion of the fund. Based on the projected operating expenditures, this policy corresponds to a minimum balance target of \$1.6 – \$2.0 million. As a reference point, the beginning unrestricted fund balance was roughly \$9.7 million in 2011, and is projected to be \$4.4 million by the end of 2016. This projected decline in the unrestricted fund balance is due to (1) the planned use of funds for capital projects assigned to the Operating Fund, and (2) the use of funds to “smooth” the near-term forecast of rate revenue needs.

The *restricted* (reserve) Operating Fund balance sets annual funds aside toward the future replacement of system assets and equipment. The restricted fund balance can be used immediately for replacement-related projects or reserved for expenditures in future years. Key factors associated with the restricted collection replacement reserve are as follows:

- ◆ System reinvestment funding has been delayed to ease the utility's cash flow burden while it funds one-time capital projects. Funding resumes at a lower rate in 2013, increasing annually thereafter.
- ◆ All collection replacement projects identified by the County are funded through the restricted reserve.
- ◆ The interest earned on the restricted fund balance will allow the balance to grow faster and offset the effects of inflation on replacement cost.
- ◆ Annual replacement projects range from \$450,000 to \$1.1 million during the 2012 – 2016 planning period.
- ◆ The restricted fund ending balance remains fairly stable at around \$19 million over the planning period and begins accumulating balances toward the end of the period as the annual contribution ramps up to target levels.

The Capital Funds contain resources restricted for capital purposes, such as GFCs, CFR payments, loan and bond proceeds. Based on prior discussions with County staff, this analysis assumes a combined minimum “contingency” balance of \$4 million for the Capital Funds. Due to the level of capital investment related to the SCRWRF, ongoing discussions regarding the County's share of future RPWRF capital requirements, and uncertainties regarding the timing of the construction of the conveyance system to Saltese Flats, it is recommended that the minimum fund target level be revisited in conjunction with the preparation of the 2012 Comprehensive Wastewater Management Plan.

2.B.III. System Reinvestment

System reinvestment has become a best management practice in the utility industry. It involves setting aside funds to accumulate a cash resource for future asset replacements, with the policy

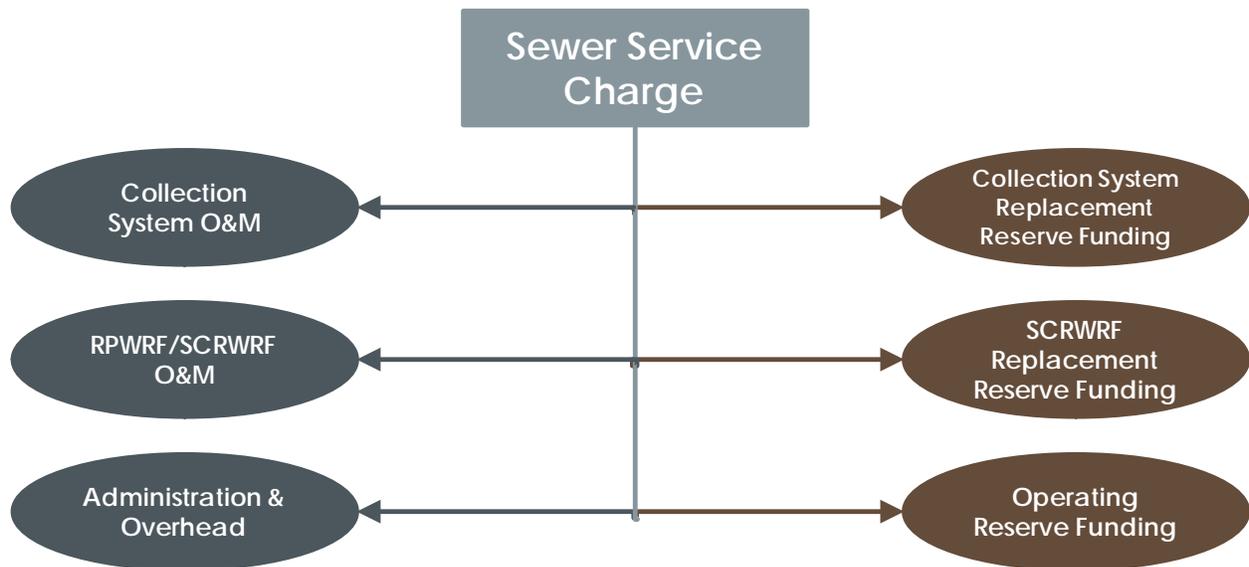
intent being to promote stable and moderate long-term rates and avoid burdening any single generation of customers with the cost of asset replacement.

While system reinvestment policies can specify a wide range of annual funding levels, they most often link the annual funding provision to depreciation as a financial measure of the annual decline in asset value. The County has undertaken an evaluation of the projected collection system replacement needs over a 20-year period, determining the level of annual rate funding required in order to support the anticipated replacement projects. In addition to the collection reserve funding, CH2M Hill Constructors, Inc, contractually mandates reserve funding which is specifically designated for minor replacement needs of the SCRWRF, and is held separate from the collection reserve restricted fund balance.

2.C. SEWER SERVICE CHARGE ASSESSMENT

As previously noted, the Sewer Service Charge generally provides the revenue used to fund the operations and maintenance costs of the wastewater utility. **Exhibit 2.2** shows a graphical representation of the basic elements of the Sewer Service Charge revenue requirement.

EXHIBIT 2.2 – SEWER SERVICE CHARGE REVENUE REQUIREMENT



2.C.1 Uses

System O&M cost estimates are initially based on estimates from the 2011 Budget. Based on input received from County staff, the O&M forecast assumes that fixed operating expenses increase at a rate of 3.5% per year. Variable operating expenses that depend on the volume of wastewater conveyed and treated increase at a higher rate (6.5% – 8.4% per year) to reflect anticipated growth in wastewater flows. Beyond the regular budget items, a number of key factors were incorporated into the revenue requirement forecast for O&M costs:

- ◆ County staff reviewed the allocation of annual salary and benefit costs between the operating and Capital Funds, making adjustments to the budgeted amounts based on anticipated reassignments of full-time equivalents (FTEs) and other changes in staffing levels. Compared to the amounts budgeted for 2011, the projected salary and benefit costs attributed to operations (Fund 401) were increased by \$284,000 to account for the addition of 3.5 FTEs. The salary and benefit costs allocated to the Capital Funds (Fund 403 and Fund 434) decreased by about \$241,000, reflecting both the deletion of 2 – 3 FTEs and the identification of salary and benefit costs that are attributable to capital projects (and should be capitalized).
- ◆ City treatment contract rate estimate of \$1,220 per million gallons (2011 dollars), escalated by inflation (3.5%) until 2017. Based on direction from County staff, this estimate reflects a 20% reduction from the rate in effect in early 2011 (\$1,525 per million gallons) to account for a discrepancy between the budgeted costs built into the County’s rate and the actual costs incurred by the City of Spokane.
- ◆ The County’s payment in lieu of taxes to the City of Spokane is based on a percentage of the County’s contract payment to the City. This percentage was 15% in 2011 – in accordance with a settlement agreement related to the City’s utility tax, it decreases to 10% for 2012 – 2016. It is assumed to decrease to 5% beginning in 2017, and expire after 2021.
- ◆ The SCRWRF is assumed to commence operations in 2012, at an estimated contract cost of \$2,400 per million gallons, increased by inflation (3.5 percent) thereafter.
- ◆ NVI/SVI conveyance costs are estimated at \$65 per million gallons in 2012, upon the inauguration of the SCRWRF.
- ◆ Treatment costs are estimated based on projected utilization of the two treatment plants and the rates per million gallons discussed above. Estimated flows from customers located in the City of Spokane Valley and the Town of Millwood (about 6.8 million gallons per day in 2012) are assumed to go to the SCRWRF. Assuming that the capacity of the SCRWRF is 8 million gallons per day, the remainder of the County’s wastewater (about 2.6 million gallons per day) is assumed to go to the RPWRF. With the assumptions discussed above, the forecast incorporates a 2012 expense of \$6.12 million for the SCRWRF and \$1.46 million for the RPWRF.
- ◆ Based on an estimated 2010 expense of \$75,000 and an assumed inflation rate of 3.5% per year, the forecast incorporates approximately \$80,000 – \$90,000 per year during the five-year study period in ongoing expenses related to Total Maximum Daily Load (TMDL) oversight committee participation. Beginning in 2012, the forecast also incorporates an additional \$800,000 (escalating with inflation) in operating expenses related to NVI/SVI conveyance O&M, biosolids O&M, PCB studies and regional task force, and NPDES water quality compliance monitoring.
- ◆ Annual funding of the collection system replacement reserve has been temporarily delayed while the County funds one-time capital projects. The forecast reintroduces this reserve funding at \$300,000 in 2013, increasing the funding amount annually (\$250,000 per year through 2017; \$75,000 per year thereafter).

- ◆ SCRWRF replacement reserve annual funding begins in 2012 at \$577,000 for a partial year, increases to about \$623,000 in 2013 to reflect a full year of operations, and escalates annually by roughly 3.6%.

2.C.II Sources

The County uses revenue from a variety of sources to offset the expenses described above:

- ◆ **Sewer Service Charge Revenue:** The “baseline” forecast of revenue from the County’s Sewer Service Charge is calculated by applying the existing rate structure to the projected number of equivalent residential units (ERUs) and billable volumes. County staff provided an inventory of existing ERUs in support of this process, also providing growth projections from new development and STEP conversions for future-year revenue projections. The forecast reflects reduced near-term growth projections based on the County’s recent experience, assuming that 1,550 ERUs (1,250 from STEP conversions, 300 from new development) are added to the system in 2012. The County intends to add roughly 2,000 ERUs per year to the system through additional STEP conversions in 2013 and 2014; growth from new development is assumed to increase to roughly 700 ERUs per year beginning in 2014.
- ◆ **Other Operating Revenues:** The County receives additional operating revenue from a variety of sources:
 - Investment Interest (Fund 401): The analysis assumes that the County earns interest at a rate of 2.25% per year on money in the operating reserve (Fund 401). Based on the projected near-term balances in Fund 401, the forecast assumes roughly \$100,000 – \$150,000 per year in investment interest income.
 - Customer-Related Fees and Penalties: Based on the 2011 Budget, the forecast assumes roughly \$851,000 in revenue from customer-related fees (inspection fees, permits, plan-check fees, and customer penalties and interest). For future-year projections, the analysis assumes that these revenues increase with ERU growth.
 - Interfund Transfers: The wastewater utility receives interfund transfers for engineering services. County staff provided an estimate of \$150,000 for 2012, indicating that the transfers will decrease to roughly \$50,000 per year due to the completion of STEP design and construction.
 - Septage Disposal Fees: County staff projected that the County would be able to generate about \$300,000 per year in septage disposal fees when the SCRWRF begins operating in 2012. This projection is based on the assumption that the SCRWRF operates at 30 – 50% of its capacity to handle septage. Consistent with related costs, the forecast assumes that this revenue stream increases with inflation (3.5% per year).

2.C.IV. Sewer Service Charge Revenue Requirement

The Sewer Service Charge revenue requirement analysis evaluates the sufficiency of operating

revenues at current rate levels, given the projected operating expenses and reserve funding requirements. **Exhibit 2.3** provides a snapshot of the annual revenue requirement and calculated rate adjustments during the planning period, with full detail provided in the Appendix.

EXHIBIT 2.3 – SEWER SERVICE CHARGE REVENUE REQUIREMENT

Sewer Service Charge Revenue Requirement Analysis	2012	2013	2014	2015	2016
Expenses:					
RPWRF Operations	\$ 1,455,703	\$ 1,545,460	\$ 1,663,983	\$ 1,775,491	\$ 1,857,709
SCRWRF Operations	6,116,316	6,679,307	7,335,680	7,888,687	8,263,819
Other Operating Expenses	8,716,264	9,031,784	9,559,949	9,885,614	10,230,918
Collection System Replacement Reserve Funding	-	300,000	550,000	800,000	1,050,000
SCRWRF Replacement Reserve Funding	577,268	623,321	645,507	668,450	692,221
Total	\$ 16,865,551	\$ 18,179,872	\$ 19,755,119	\$ 21,018,242	\$ 22,094,667
Existing Monthly Sewer Service Charge	\$ 27.29				
Sewer Service Charge Required To Cover Expenses	\$ 26.21	\$ 27.14	\$ 28.28	\$ 30.19	\$ 31.43
Proposed Monthly Sewer Service Charge	\$ 27.29	\$ 28.04	\$ 28.79	\$ 29.79	\$ 31.04
Change From Prior-Year Charge	-	0.75	0.75	1.00	1.25

Exhibit 2.3 indicates that while the existing Sewer Service Charge is sufficient to cover costs in 2012 and 2013, the County will need to increase the Sewer Service Charge in 2014 and subsequent years. Key drivers include increasing treatment costs (related to increases in both the unit cost of treatment and the volume of wastewater treated) and the phasing of system reinvestment funding for the collection system and SCRWRF replacement reserves. The proposed near-term strategy involves retaining the existing Sewer Service Charge for 2012, and increasing the monthly Sewer Service Charge annually through 2016 in increments of \$0.75 – \$1.25. Though the proposed strategy involves larger upfront increases to the Sewer Service Charge than the “raw” forecast based on projected costs, it avoids a spike in 2015 and results in a lower overall rate by 2016.

2.D. WWTP CHARGE ASSESSMENT

In 1996, the County established the monthly Wastewater Treatment Plant (WWTP) Charge for the purpose of funding required water quality improvements at the RPWRF; in recent years, the County has also used this charge to help pay for the SCRWRF. **Exhibit 2.4** shows a graphical representation of the basic elements of the WWTP Charge revenue requirement.

EXHIBIT 2.4 – WWTP CHARGE REVENUE REQUIREMENT

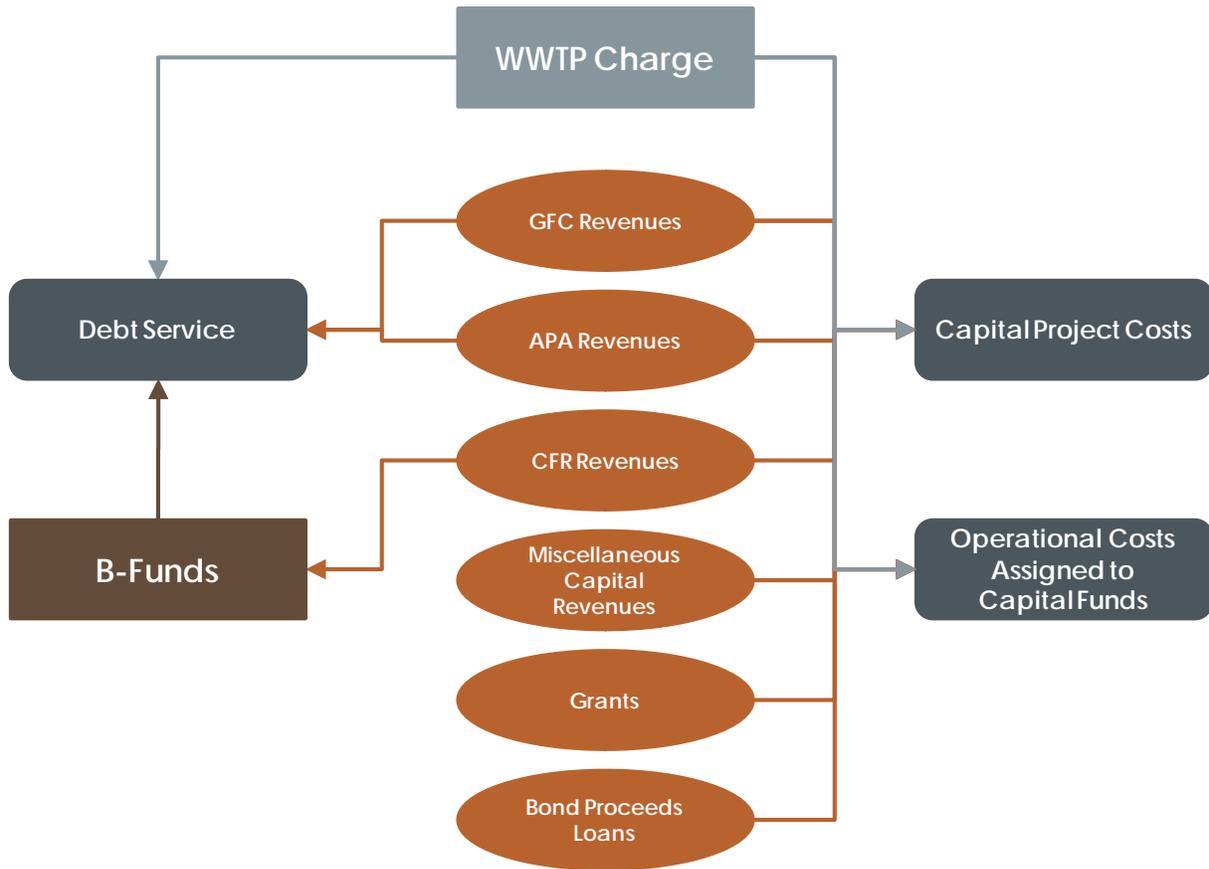


Exhibit 2.4 identifies funding sources available to cover capital and debt service costs. The WWTP Charge is only one revenue source among others that is available to meet the utility’s capital needs.

2.D.I Uses

As shown in Exhibit 2.4, the utility’s capital needs can be classified in three general categories:

- ◆ **Capital Project Costs:** The County’s wastewater utility capital program includes roughly \$85 million in project costs between 2012 and 2016, as summarized in Exhibit 2.5:

EXHIBIT 2.5 – 2012-2016 CAPITAL COST PROJECTIONS

Capital Project Costs	2012	2013	2014	2015	2016	Total
Riverside Park Water Reclamation Facility Projects (RPWRF)	\$ 2,848,406	\$ 8,454,112	\$ 13,583,606	\$ 19,561,466	\$ 16,076,445	\$ 60,524,035
Spokane County Regional Water Reclamation Facility	880,000	-	-	-	-	880,000
Influent Pumping Station, Force Mains, and Outfall Projects	665,000	-	-	-	-	665,000
Pump Station and Force Main Projects (GFC Projects Only)	2,580,000	100,000	100,000	550,000	3,350,000	6,680,000
TMDL Compliance Programs/Projects	1,968,000	3,399,000	3,579,000	-	-	8,946,000
Wetlands Restoration - Saltese Flats Phase 1 (Natural Water)	325,000	2,325,000	375,000	-	-	3,025,000
Program System Improvements	2,125,000	500,000	500,000	500,000	500,000	4,125,000
Total	\$ 11,391,406	\$ 14,778,112	\$ 18,137,606	\$ 20,611,466	\$ 19,926,445	\$ 84,845,035

* 2011 included \$65 million in project costs for a total of \$150 million in for 2011 - 2016

The County's share of costs associated with upgrades at the RPWRF is expected to be the most significant near-term investment, accounting for roughly 71% of the capital costs projected from 2012 – 2016. The County is also planning to make significant investments in TMDL compliance projects, pump station and force main construction, collection system improvements, and wetland restoration associated with Phase 1 of the Saltese Flats project. It is worth noting that based on input received from County staff, these projections exclude \$30 million in construction costs associated with Phase 2 of the Saltese Flats project.

- ◆ **Debt Service:** The County currently has a number of outstanding debt issues, the proceeds of which were used in the past to fund capital projects (including construction of the SCRWRF). Based on the County's existing debt repayment schedules, the County will pay debt service on 1 revenue bond, 10 existing general obligation (GO) bonds, 2 Public Works Trust Fund (PWTF) loans, and 2 State Revolving Fund (SRF) loans during 2012 – together, payments on these debt issues total between \$12.5 and \$20.7 million per year between 2012 and 2016.
- ◆ **Operational Costs Assigned to Capital Funds:** These costs primarily consist of state excise taxes attributable to capital revenues (e.g. GFC revenues) and interfund transfers identified in the County's operating budget. Roughly \$1.0 million in these annual operating expenses were identified in the 2011 Budget. The Capital Funds also pay for salary and benefit costs attributed to capital projects.

2.D.II Sources

The County has a number of different funding sources available to fund its capital needs:

- ◆ **Grants:** The County expects to receive \$3.75 million per year in grants from the Department of Ecology from 2012 – 2014 in support of the STEP and other water quality projects. In addition, the County has secured a grant for \$925,000 from the Public Works Trust Fund.
- ◆ **Aquifer Protection Area (APA) Fees:** In 1985, APA fees were established for a 20-year period to fund aquifer protection and monitoring along with sewer construction for septic tank elimination. This fee was reauthorized for another 20 years in 2005. County staff provided projections indicating a total of \$960,000 – \$980,000 per year in APA fees; the County's allocated share of this revenue stream is slightly more than 50% (\$505,000 to \$555,000 per year). The City of Spokane Valley recently expressed its intent to retain its share of the APA revenue stream, prompting the County to consider a surcharge for its customers within the City of Spokane Valley to recover the lost revenue.
- ◆ **GFC Revenues:** The County imposes the GFC on new development as a one-time charge based on a proportionate share of the cost of the system. The 2012 GFC applicable to new development is \$4,510 per ERU, based on a 2009 review of the County's GFCs. This analysis did not update the GFC calculation, assuming annual inflationary adjustments to the GFCs beyond 2012. Based on projected connections from new development, this analysis assumes that the County will generate about \$1.1 million from GFCs in 2012 – with the increased growth projections in subsequent years, annual GFC revenues would increase to about \$3.6 million by 2016.

- ◆ **CFR Revenues:** STEP conversions pay the Capital Facilities Rate (CFR) upon connection to the County’s wastewater system. It includes both a construction component and a discounted GFC, and is amortized into a monthly payment over a 20-year period. The projection of CFR revenue (\$6.9 million – \$8.9 million per year during the study period) incorporates a CFR payment schedule based on a cumulative history of conversions as well as projected payments from anticipated conversions.
- ◆ **Other Capital Revenues:** The County receives capital revenue from a variety of sources, including interest earned on Capital Fund balances, assessment interest (assumed to be \$65,000 per year), and other capital revenues (assumed to be \$20,000 per year).
- ◆ **Bond Proceeds:** In the event that the County’s cash resources are insufficient to cover the cost of capital improvements, this analysis assumes that the County will issue new revenue bonds as needed.

Given the projected capital revenues and expenditures, the County will have sufficient cash resources to fund its near-term capital needs without additional debt issuance. It is important to note that changes in the availability or planned use of one funding source will require a change in the other funding sources.

2.D.III WWTP Charge Revenue Requirement

As previously noted, WWTP Charge revenue needs are evaluated in the context of a greater “capital program revenue requirement,” considering other available capital resources that offset the projected capital needs. **Exhibit 2.6** shows how the total obligations of the capital program are balanced with the multiple resources available to the County.

EXHIBIT 2.6 – CAPITAL PROGRAM REVENUE REQUIREMENT SUMMARY

Capital Program Revenue Requirement Analysis	2012	2013	2014	2015	2016
Existing Monthly WWTP Charge	\$ 17.75	\$ 17.75	\$ 17.75	\$ 17.75	\$ 17.75
Proposed Monthly WWTP Charge	\$ 17.12	\$ 17.12	\$ 17.12	\$ 17.12	\$ 17.12
Change From Prior-Year Charge	(0.63)	-	-	-	-
Beginning Balance - Capital Funds	\$ 47,084,499	\$ 55,044,217	\$ 58,410,119	\$ 56,525,319	\$ 38,403,330
Less - Expenses:					
Capital Project Costs	\$ 11,391,406	\$ 14,778,112	\$ 18,137,606	\$ 20,611,466	\$ 19,926,445
Taxes/Salaries/Other Costs	1,271,162	1,458,366	1,435,270	1,486,138	1,578,988
Debt Service	12,521,748	15,141,929	14,711,655	20,681,614	19,984,243
Total	\$ 25,184,316	\$ 31,378,407	\$ 34,284,531	\$ 42,779,218	\$ 41,489,675
Plus - Revenues:					
WWTP Charge Revenue (w/ Rate Incr. + Surcharge)	\$ 10,821,515	\$ 11,285,056	\$ 11,796,597	\$ 11,911,185	\$ 12,046,805
Grants	4,675,000	3,750,000	3,750,000	-	-
Net APA Revenue County	504,975	521,989	538,708	555,118	551,952
Non-Program GFC Revenue	1,098,500	1,636,777	2,648,083	3,447,106	3,593,126
CFR Revenue	9,088,996	8,072,394	7,670,648	7,287,000	6,920,680
Capital Fund Interest & Other Revenue	1,144,401	1,323,495	1,399,228	1,356,820	949,075
Operating Fund Contributions	638,000	2,176,000	350,000	100,000	100,000
Transfer From B-Funds For Debt Service	5,172,647	5,978,597	4,246,469	-	-
Total	\$ 33,144,035	\$ 34,744,308	\$ 32,399,732	\$ 24,657,229	\$ 24,161,638
Ending Balance - Capital Funds	\$ 55,044,217	\$ 58,410,119	\$ 56,525,319	\$ 38,403,330	\$ 21,075,292

The Capital Fund beginning balance is comprised of the Construction Fund (403), the DBO/Plant Construction Fund (434), General Facilities Charge Fund (438) and the Wastewater Treatment Plant Fund (E-01). **Exhibit 2.6** indicates that the ending fund balance remain fairly steady through 2014. Beginning in 2015, expenses are expected to exceed revenues, as shown by the ending fund balance declining. This is due to (a) the addition of capital costs related to TMDL compliance improvements at the RPWRF and (b) limitations in the amount of support available from the B-Funds to offset debt service costs. The deficit is expected to grow due to additional capital expenditures associated with the RPWRF and the introduction of principal payments on the County’s 2009 Bonds. The total balance in the Capital Funds will decrease by roughly \$26 million over the five-year study period, but will remain well above the minimum balance of \$4 million. The County should monitor fund balances regularly to verify that adequate resources are available.

In addition to the “baseline” WWTP Charge scenario shown in **Exhibit 2.6**, County staff requested other alternate scenarios:

- ◆ **Retain Existing WWTP Charge:** In this scenario, the County would retain the existing WWTP Charge through 2016 to generate additional resources for capital investment. Compared to the “baseline” scenario, this scenario would likely require less future debt issuance and result in lower long-term rates.
- ◆ **Include Phase 2 of Saltese Flats:** In this scenario, the County would fund a \$30-million investment in Phase 2 of the Saltese Flats project in 2013 and 2014. It would require the County to issue about \$33.5 million in revenue bonds which, assuming 20-year bonds with an interest rate of 4.95%, would increase annual debt service by about \$2.7 million.
- ◆ **Reduce WWTP Charge:** In this scenario, the County would reduce the WWTP Charge. The revenue sources would not be sufficient to cover annual obligations in the Capital Fund, thereby requiring the use of fund balances. This alternative intends to reduce fund balances over time while maintaining a minimum fund balance of \$4 million during the study period.

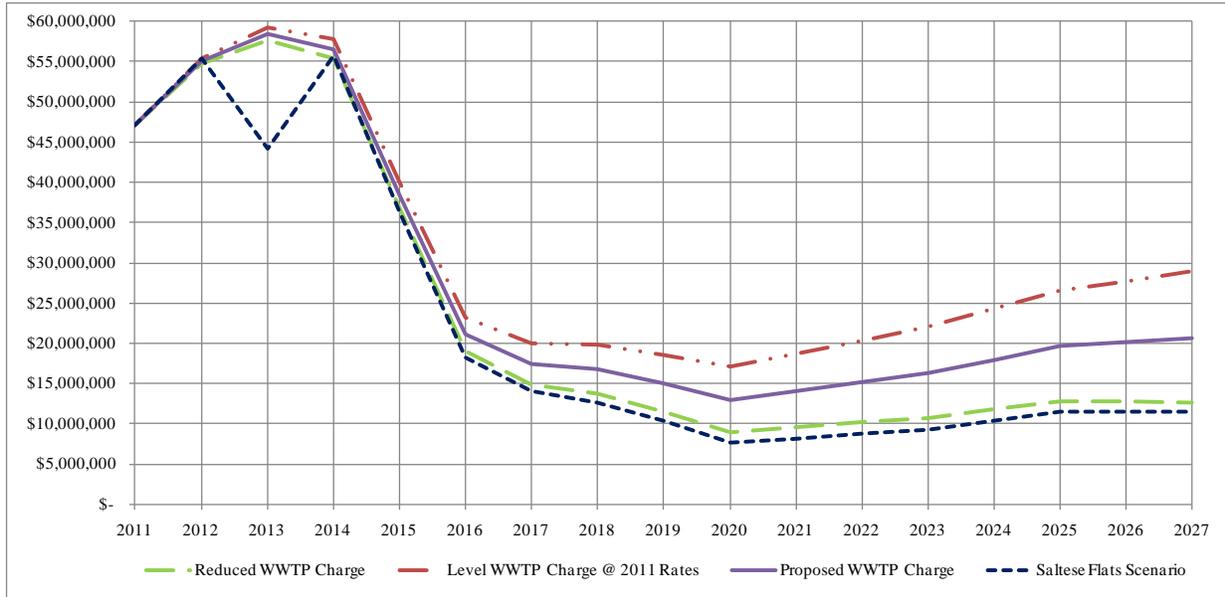
Exhibit 2.7 summarizes the alternate WWTP Charge forecasts for the scenarios described above:

EXHIBIT 2.7 – SUMMARY OF WWTP CHARGE SCENARIOS

Summary of WWTP Charge Scenarios	2012	2013	2014	2015	2016
Proposed (Baseline)	\$ 17.12	\$ 17.12	\$ 17.12	\$ 17.12	\$ 17.12
<i>Retain Existing WWTP Charge</i>	\$ 17.75	\$ 17.75	\$ 17.75	\$ 17.75	\$ 17.75
<i>Include Phase 2 of Saltese Flats</i>	\$ 17.75	\$ 17.75	\$ 18.50	\$ 19.25	\$ 20.25
<i>Reduce the WWTP Charge</i>	\$ 16.50	\$ 16.50	\$ 16.50	\$ 16.50	\$ 16.50

The Capital Funds are projected to have a year-end 2016 balance of about \$21.1 million in the baseline forecast. The alternate scenarios in **Exhibit 2.7** result in relatively similar ending balances in the Capital Funds by the end of 2016. Considering longer-term projections, the difference in the ending fund balance between the scenarios is a maximum of \$17 million. **Exhibit 2.8** summarizes the projected ending fund balance of the Capital Fund for the scenarios considered.

EXHIBIT 2.8 – SUMMARY OF CAPITAL FUND ENDING BALANCE



This level of ending balance with the proposed WWTP Charge is reasonable and will allow the County to be better positioned to respond to the uncertainty of future capital cost related to the RPWRF and the possibility of having to continue with Saltese Flats or other regulatory requirements in the future.

Section 3: RATE DESIGN

3.A. INTRODUCTION

Once the revenue requirement is established by accounting for all operating and capital needs of the utility, it is necessary to develop an implementation strategy for rates and charges. The overall objective is to recover the full revenue requirement while achieving ongoing equity and policy objectives.

3.B. EXISTING RATES

The existing monthly wastewater rate structure consists of two charges:

- ◆ The Sewer Service Charge pays for ongoing operations and maintenance costs, system reinvestment (replacement) funding, and any reserve funding needed to comply with County policy regarding minimum operating reserve levels. Under the existing structure,
 - Single family residences pay a fixed charge based on 1 ERU.
 - Multi-family dwellings pay a base fixed charge per account plus a fixed charge based on 0.7 ERUs per living unit.
 - Businesses and mobile home parks pay a base fixed charge for the first ERU plus a volume charge for each 100 cubic feet of water consumed over 800 cubic feet.
- ◆ The WWTP Charge provides funding for capital construction and debt service costs. Consistent with the Sewer Service Charge structure, single family residences are charged a fixed monthly fee (base charge); business/commercial/manufactured home park customers are charged a base charge plus a volume charge for each 100 cubic feet of water consumed over 800 cubic feet.
- ◆ The County offers a 20% reduced rate discount on monthly sewer rates for qualified low-income seniors and low-income disabled customers.

3.C. PROPOSED RATES

The proposed near-term rate strategy includes the following elements:

- ◆ The Sewer Service Charge is adjusted as shown in **Exhibit 2.3**. It is held at the existing level for 2012, and increased annually from 2013 – 2016.

- ◆ The WWTP Charge is adjusted as shown in **Exhibit 2.7** (reflecting the “baseline” WWTP Charge scenario). It is decreased in 2012 and held constant from 2013 – 2016.
- ◆ The City of Spokane Valley has elected to use its allocated share of APA fee revenue for improvements to its stormwater system. Given that the APA fees have historically been used for wastewater utility purposes, the City’s decision will impact the County’s wastewater utility. To account for the loss of Spokane Valley’s share of the APA revenue stream, the proposed rate strategy introduces an APA rate surcharge for customers located within the corporate limits of the City of Spokane Valley. The surcharge is computed by dividing the projected APA revenue allocated to Spokane Valley by the projected number of ERUs in Spokane Valley – based on the values projected for 2012 (\$478,806 and 36,449, respectively), the surcharge is computed to be \$1.10 per month per ERU.
- ◆ The existing rate structure includes a fixed monthly charge of \$3.37 per account to cover costs related to customer billing. This charge is built directly into the fixed rate for all customers except multi-family customers, which pay the account charge for each account (the remainder of the Sewer Service Charge applies to each living unit served). County staff reviewed the budgeted cost related to customer billing and the projected number of accounts, and concluded that the existing account charge is adequate to recover the budgeted cost. The proposed rate strategy retains the existing customer charge through 2016.

Exhibit 3.1 shows a detailed account of how the proposed rates will be applied to County ratepayers. Except for the APA surcharge discussed above, the rate has been applied to all rate classes equally – where applicable, the volume charges are adjusted proportionately to reflect changes to the fixed charges.

EXHIBIT 3.1 – PROPOSED 2012 – 2014 RATES

Monthly Wastewater Rates	Existing	Outside City of Spokane Valley			Inside City of Spokane Valley		
		Adopted			Adopted		
		2011	2012	2013	2014	2012	2013
Reduced-Rate Residential							
Sewer Service Charge	\$21.83	\$21.83	\$22.43	\$23.03	\$21.83	\$22.43	\$23.03
WTP Charge	\$14.20	\$13.70	\$13.70	\$13.70	\$14.58	\$14.58	\$14.58
TOTAL MONTHLY BILL	\$36.03	\$35.53	\$36.13	\$36.73	\$36.41	\$37.01	\$37.61
Single-Family Residential							
Sewer Service Charge	\$27.29	\$27.29	\$28.04	\$28.79	\$27.29	\$28.04	\$28.79
WTP Charge	\$17.75	\$17.12	\$17.12	\$17.12	\$18.22	\$18.22	\$18.22
TOTAL MONTHLY BILL	\$45.04	\$44.41	\$45.16	\$45.91	\$45.51	\$46.26	\$47.01
Duplexes							
Sewer Service Charge	\$54.58	\$54.58	\$56.08	\$57.58	\$54.58	\$56.08	\$57.58
WTP Charge	\$35.50	\$34.24	\$34.24	\$34.24	\$36.44	\$36.44	\$36.44
TOTAL MONTHLY BILL	\$90.08	\$88.82	\$90.32	\$91.82	\$91.02	\$92.52	\$94.02
Multi-Family Residential							
Sewer Service Charge	\$16.74	\$16.74	\$17.27	\$17.79	\$16.74	\$17.27	\$17.79
WTP Charge	\$12.42	\$11.98	\$11.98	\$11.98	\$12.75	\$12.75	\$12.75
Account Charge	\$3.37	\$3.37	\$3.37	\$3.37	\$3.37	\$3.37	\$3.37
TOTAL MONTHLY BILL		Depends on Number of Dwelling Units			Depends on Number of Dwelling Units		
Commercial & Mobile Home Parks							
Sewer Service Charge - Base	\$27.29	\$27.29	\$28.04	\$28.79	\$27.29	\$28.04	\$28.79
Sewer Service Charge - Volume*	\$2.98	\$2.99	\$3.08	\$3.18	\$2.99	\$3.08	\$3.18
WTP Charge - Base	\$17.75	\$17.12	\$17.12	\$17.12	\$18.22	\$18.22	\$18.22
WTP Charge - Volume*	\$2.20	\$2.14	\$2.14	\$2.14	\$2.28	\$2.28	\$2.28
TOTAL MONTHLY BILL		Depends on Volume of Winter Water Usage			Depends on Volume of Winter Water Usage		

*The Volume Charge applies to each 100 cubic feet (ccf) of winter-average water usage above the 8 ccf that is included in the base charge

As part of the Wastewater Rate Study Update, a number of review sessions were held with the Spokane County Board of County Commissioners (BoCC) and Spokane Valley City Council (SVCC), culminating in a Public Hearing on November 29, 2011. The goals were to 1) effectively provide key decision makers the opportunity to offer feedback and direction during the course of the study process, and 2) give City and County ratepayers the opportunity to understand the key changes affecting the study and voice their opinions in a public setting.

FCS GROUP accompanied utility staff to 3 meetings:

- ◆ October 4, 2011 – BoCC briefing of preliminary findings and solicitation of feedback
- ◆ October 10, 2011 – Wastewater Policy Advisory Board presentation
- ◆ November 29, 2011 – BoCC Public Hearing

The BoCC unanimously adopted the rates shown for 2012 – 2014 in **Exhibit 3.1**.

Section 4: TECHNICAL APPENDIX
