

# 11 FINANCIAL PLAN

## 11.1 Introduction

This chapter was prepared by FCS GROUP to provide a financial program that will allow the District to remain financially viable during the planning period. This financial viability analysis considers the historical financial condition, current and identified future financial and policy obligations, operation and maintenance needs, and the ability to support the financial impact related to the completion of the capital projects identified in this WSP. Furthermore, this chapter provides a review of the utility's current rate structure with respect to rate adequacy, promotion of water conservation, and customer affordability. Appendix R presents backup documentation related to this financial plan.

## 11.2 Past Financial Performance

This section includes a historical summary of financial performance as reported by the District on the fund resources and uses arising from cash transactions, the comparative statements of revenues, expenses, and changes in fund net position, as well as a historical summary of comparative statements of net position, which are useful indicators of the financial position of the District.

### 11.2.1 Comparative Financial Statement

The District legally owns and operates a water utility fund. Table 11-1 summarizes the comparative statements of revenues, expenses, and changes in fund net position for the District for the 6 years from 2007 through 2012. Table 11-2 summarizes assets and liabilities, with the difference between the two reported as "net position". Increases or decreases in net position are useful indicators of the financial position of the District. Noteworthy findings and trends are discussed to demonstrate the historical performance and condition of the District.

**Table 11-1. Summary of Historical Comparative Statements of Revenues, Expenses,  
and Changes in Fund Net Position**

	2007	2008	2009	2010	2011	2012
<b>Operating Revenue</b>						
Water Sales						
Residential-Multiple	\$ 9,049,838	\$ 9,482,574	\$ 10,162,024	\$ 10,017,452	\$ 9,824,749	\$ 10,339,605
Commercial-Industrial-Farms	2,901,840	3,164,839	3,269,545	3,276,755	3,247,353	3,239,624
Government	359,527	371,693	395,721	391,570	374,145	402,691
Resale	74,919	61,455	85,186	77,534	73,340	75,183
Irrigation	393,171	336,883	382,841	294,494	275,354	304,056
Other Revenues	180,696	172,958	189,650	328,656	388,427	405,259
<b>Total Operating Revenue</b>	<b>\$ 12,959,991</b>	<b>\$ 13,590,402</b>	<b>\$ 14,484,967</b>	<b>\$ 14,386,461</b>	<b>\$ 14,183,368</b>	<b>\$ 14,766,418</b>
<b>Operating Expenses</b>						
Supply	\$ 563,409	\$ 671,885	\$ 640,454	\$ 880,940	\$ 977,464	\$ 1,052,303
Treatment	1,098,815	1,152,428	1,298,343	1,320,909	1,456,774	1,373,883
Transmission & Distribution	1,426,012	1,736,685	1,786,317	1,625,978	1,956,332	2,224,308
Broadband	-	113,756	7,882	12,927	26,744	11,229
Customer Accounts	767,168	842,060	873,145	828,355	981,620	1,000,952
Administrative and General	2,487,848	3,549,023	3,650,693	3,934,010	3,826,311	3,538,790
Utility Taxes	665,454	686,973	690,892	721,085	698,460	746,410
Depreciation Expense	3,201,495	3,368,843	3,543,783	4,010,814	4,656,360	4,343,133
<b>Total Operating Expenses</b>	<b>\$ 10,210,201</b>	<b>\$ 12,121,652</b>	<b>\$ 12,491,509</b>	<b>\$ 13,335,018</b>	<b>\$ 14,580,065</b>	<b>\$ 14,291,008</b>
<b>Operating Income (Loss)</b>	<b>\$ 2,749,790</b>	<b>\$ 1,468,750</b>	<b>\$ 1,993,458</b>	<b>\$ 1,051,443</b>	<b>\$ (396,697)</b>	<b>\$ 475,410</b>
Non Operating Revenue	\$ 1,558,056	\$ 735,670	\$ 382,192	\$ 382,639	\$ 254,297	\$ 253,508
Non Operating Expenses	(569,881)	(567,822)	(519,805)	(788,246)	(832,306)	(569,228)
Capital Contributions	5,732,323	5,143,917	2,811,673	1,433,914	3,083,642	1,523,905
Special Item [a]	-	-	-	1,300,000	-	-
<b>Change in Net Assets</b>	<b>\$ 9,470,288</b>	<b>\$ 6,780,515</b>	<b>\$ 4,667,518</b>	<b>\$ 3,379,750</b>	<b>\$ 2,108,936</b>	<b>\$ 1,683,595</b>

[a] A legal settlement related to the Skagit River Diversion project was started in 1999 and put into use in Jan 2010

**Table 11-2. Summary of Historical Comparative Statements of Net Position**

	2007	2008	2009	2010	2011	2012
<b>Assets</b>						
<b>Current Assets</b>						
Cash and Cash Equivalents	\$ 17,104,620	\$ 13,712,497	\$ 11,636,850	\$ 13,681,365	\$ 13,806,258	\$ 9,368,143
Other Unrestricted Current Assets	4,602,598	5,825,922	3,936,327	3,307,231	3,295,315	7,754,252
<b>Total Unrestricted Current Assets</b>	<b>\$ 21,707,218</b>	<b>\$ 19,538,419</b>	<b>\$ 15,573,177</b>	<b>\$ 16,988,596</b>	<b>\$ 17,101,573</b>	<b>\$ 17,122,395</b>
Restricted Current Assets	5,190,824	335,441	559,426	629,269	634,183	603,310
<b>Total Current Assets</b>	<b>\$ 26,898,042</b>	<b>\$ 19,873,860</b>	<b>\$ 16,132,603</b>	<b>\$ 17,617,865</b>	<b>\$ 17,735,756</b>	<b>\$ 17,725,705</b>
<b>Noncurrent Assets</b>						
Other	\$ 2,657,027	\$ 2,351,392	\$ 2,529,396	\$ 2,335,382	\$ 2,089,364	\$ 1,982,628
Capital Assets Not Being Depreciated [a]	-	-	49,633,545	22,894,126	16,847,092	20,082,239
Capital Assets Net of Accumulated Depreciation	119,789,469	132,801,055	93,998,317	120,127,251	125,877,451	126,465,410
<b>Total Noncurrent Assets</b>	<b>\$ 122,446,496</b>	<b>\$ 135,152,447</b>	<b>\$ 146,161,258</b>	<b>\$ 145,356,759</b>	<b>\$ 144,813,907</b>	<b>\$ 148,530,277</b>
<b>Total Assets</b>	<b>\$ 149,344,538</b>	<b>\$ 155,026,307</b>	<b>\$ 162,293,861</b>	<b>\$ 162,974,624</b>	<b>\$ 162,549,663</b>	<b>\$ 166,255,982</b>
<b>Liabilities</b>						
<b>Current Liabilities</b>						
Current Operating & Deferred Liabilities	\$ 1,520,530	\$ 2,989,996	\$ 1,986,424	\$ 1,776,172	\$ 1,244,507	\$ 2,125,341
Bonds and Loans Payable, Principal and Interest	2,139,316	2,139,616	2,517,737	2,507,258	2,518,387	2,702,571
<b>Total Current Liabilities</b>	<b>\$ 3,659,846</b>	<b>\$ 5,129,612</b>	<b>\$ 4,504,161</b>	<b>\$ 4,283,430</b>	<b>\$ 3,762,894</b>	<b>\$ 4,827,912</b>
<b>Total Restricted Current Liabilities</b>	<b>\$ 1,125,405</b>	<b>\$ 53,822</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Noncurrent Liabilities</b>						
Non-operating	\$ 594,287	\$ 622,351	\$ 327,156	\$ 308,684	\$ 547,231	\$ 769,355
Bonds & Loans	24,941,921	23,416,928	26,991,433	24,531,649	22,248,892	22,974,403
<b>Total Noncurrent Liabilities</b>	<b>\$ 25,536,208</b>	<b>\$ 24,039,279</b>	<b>\$ 27,318,589</b>	<b>\$ 24,840,333</b>	<b>\$ 22,796,123</b>	<b>\$ 23,743,758</b>
<b>Total Liabilities</b>	<b>\$ 30,321,459</b>	<b>\$ 29,222,713</b>	<b>\$ 31,822,750</b>	<b>\$ 29,123,763</b>	<b>\$ 26,559,017</b>	<b>\$ 28,571,670</b>
<b>Total Deferred Inflows of Resources</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 30,849</b>	<b>\$ 40,920</b>
<b>Net Position</b>						
Net Investment in Capital Assets	\$ 92,941,025	\$ 107,617,316	\$ 114,604,672	\$ 116,482,831	\$ 118,406,936	\$ 121,268,644
Restricted	5,190,824	335,441	559,426	629,269	634,183	603,310
Unrestricted	20,891,230	17,850,837	15,307,013	16,738,761	16,918,678	15,771,438
<b>Total Net Position</b>	<b>\$ 119,023,079</b>	<b>\$ 125,803,594</b>	<b>\$ 130,471,111</b>	<b>\$ 133,850,861</b>	<b>\$ 135,959,797</b>	<b>\$ 137,643,392</b>

[a] 2007 & 2008 financial statements did not separate assets not being depreciated

### 11.2.2 Findings and Trends

- The District's water sales increased by 11.9% from 2007 to 2009, and an additional 0.5% from 2009 to 2012. The lower increases in later years were likely due to cooler than normal weather conditions and the depressed economy. Total expenses increased each year through 2011; in 2012, lower depreciation and administrative expenses assisted with net operating income becoming positive again.
- The O&M Coverage Ratio (total operating revenue divided by total operating expenses) began 2007 at 126.9%, declined to 97.3% in 2011, and ended 2012 at 103.3%. A ratio of 100% or greater shows that revenue will successfully cover expenses. The lowest ratio in 2011 was largely due to a 6-year high depreciation expense of \$4.66 million.
- Net Operating Income as a percent of Operating Revenue was the highest in 2007 at 21.2%, decreasing steadily to -2.8% in 2011 and turning around in 2012 to end at 3.2%. Similar to the O&M Coverage Ratio, these trends help show how successfully operating revenue actually covered operating expenses, with higher positive numbers being the best and negative numbers showing need for improvement.

- The Debt Service Coverage Ratio is required by bond covenants to remain above 1.25 during the life of the loans. This ratio is calculated by dividing cash operating income (revenue less expenses before depreciation) by annual revenue bond expenses. This ratio remains above the target, beginning 2007 at a high of 2.78, decreasing to 1.69 in 2011, and climbing again to 1.78 in 2012.
- The Current Ratio is calculated by dividing unrestricted current assets by current liabilities. This ratio ranges from a high of 14.3 in 2007 to a low of 6.5 in 2008 and increases to 8.1 in 2012. Anything above 2.0 for this liquidity ratio is good.
- The Debt to Net Position Ratio compares total debt to total net position, which is the difference between current assets and liabilities. This ratio begins at 0.23 or 23% debt in 2007, decreases to 0.18 in 2011, and increases slightly to end 2012 at 0.19. For utility districts, a ratio of 50 to 60% helps normalize rate impacts, and there is less need to test the total level of debt service to net operating revenues.
- The Debt to Noncurrent Capital Asset Ratio compares total debt to noncurrent assets, which are also known as property, plant, and equipment. This ratio begins at 0.22 or 22% debt to 78% noncurrent assets in 2007. Noncurrent capital assets increase more than debt throughout the 6-year history and the ratio lowers to 0.17 in 2011 and 2012. Similar to the debt to net position ratio, a 60% debt to 40% equity is a general industry target.

## 11.3 Current Financial Structure

This section summarizes the current financial structure used as the baseline for the capital financing strategy and financial forecast developed for this WSP.

### 11.3.1 Financial Plan

The District is responsible for funding all of its costs. The primary source of funding is derived from ongoing monthly charges for service, with additional revenues coming from miscellaneous revenues, services, penalty income on Local Utility Districts (LUDs), and non-donated plant. The District controls the level of user charges and, subject to the Board of Commissioners approval, can adjust user charges as needed to meet financial objectives.

The financial plan can only provide a qualified assurance of financial feasibility if it considers the total system costs of providing water services, both operating and capital. To meet these objectives, the following elements have been completed:

1. **Capital Funding Plan.** Identifies the total Capital Improvement Plan (CIP) obligations of the planning period. The plan defines a strategy for funding the CIP including an analysis of available resources from rate revenues, existing reserves, connection charges, debt financing, and any special resources that may be readily available (e.g., grants, developer contributions, etc.). The capital funding plan impacts the financial plan through the use of debt financing (resulting in annual debt service) and the assumed rate revenue available for capital funding.

2. **Financial Forecast.** Identifies future annual non-capital costs associated with the operating, maintenance, and administration of the water system. Included in the financial plan is a reserve analysis that forecasts cash flow and fund balance activity along with testing for satisfaction of actual or recommended minimum fund balance policies. The financial plan ultimately evaluates the sufficiency of utility revenues in meeting all obligations, including cash uses such as operating expenses, debt service, capital outlays, and reserve contributions, as well as any coverage requirements associated with long-term debt. The plan also identifies the future adjustments required to fully fund all utility obligations in the projection period.

### 11.3.2 Capital Funding Plan

The CIP developed for this WSP identifies \$62.50 million in project costs over the 6-year planning horizon and \$138.40 million in the 20-year period. This CIP consists of 31 projects, including annual pipe and vehicle replacement, new pump stations, and pipelines. Costs are stated in 2013 dollars and are escalated by 3.16% annually to the year of planned spending for financing projections.

A summary of the 20-year CIP is shown in Table 11-3. As shown, each year has varied capital cost obligations depending on construction schedules and infrastructure planning needs. Approximately 45.16% (2013 dollars) of the capital costs are included in the 6-year planning period. Annual Pipe and Vehicle Replacement accounts for 33.49% and the Transmission Line, Judy – MV (Phase 2) project accounts for 22.88% of the 6-year CIP. Table 11-4 provides more detail for the 6-year CIP.

**Table 11-3. 6- and 20-Year CIP**

<b>Year</b>	<b>2013\$</b>	<b>Inflated</b>
2014	\$ 4,360,000	\$ 4,497,927
2015	16,900,000	17,986,159
2016	8,990,000	9,870,458
2017	13,325,000	15,092,830
2018	9,125,000	10,662,577
2019	9,800,000	11,813,573
<b>6-Year Total</b>	<b>\$ 62,500,000</b>	<b>\$ 69,923,524</b>
2020-2033	75,900,000	114,858,708
<b>20-Year Total</b>	<b>\$ 138,400,000</b>	<b>\$ 184,782,232</b>

**Table 11-4. 6-Year CIP (2013)**

<b>Project</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Dukes Hill Pump Station	150,000					
Cedar Hills Booster Station	60,000					
WTP Chemical Feed System Replacement	125,000					
Document Management Software	200,000					
WTP Dry Scrubber Retrofit	125,000					
Water Loss Control Action Plan	70,000					
E. Division Tank, Pump Station and Piping		10,000,000				
Josh Wilson Road Improvements		200,000	1,300,000			
Josh Wilson Fiber			130,000			
Old Highway 99 Fiber			60,000			
North 30th St and Digby Road Pipelines		2,400,000	0			
Transmission Line, Judy - MV (Phase 2)	200,000	800,000	4,000,000	9,300,000		
Computer Server Hardware				175,000	175,000	
McLean Road Pipeline				300,000	4,400,000	
Cascade Ridge Reservoir				50,000	150,000	
Cascade Ridge Fiber					250,000	
Best Road Pipeline					300,000	2,100,000
Burklund Road Pipeline					300,000	3,100,000
Big Lake Reservoir					50,000	350,000
North Fork Skagit River Crossing						500,000
Pleasant Ridge Area Reservoir						100,000
SW - Burlington Fiber						150,000
Annual Pipe and Vehicle Replacement	3,430,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000
<b>Total</b>	<b>\$ 4,360,000</b>	<b>\$ 16,900,000</b>	<b>\$ 8,990,000</b>	<b>\$ 13,325,000</b>	<b>\$ 9,125,000</b>	<b>\$ 9,800,000</b>

### 11.3.3 Capital Financing Strategy

An ideal capital financing strategy would include the use of grants and low-cost loans when debt issuance is required. However, these resources are very limited and competitive in nature and do not provide a reliable source of funding for planning purposes. It is recommended that the District pursue these funding avenues but assume bond financing to meet needs for which the District's available cash resources are insufficient. Other than the Drinking Water State Revolving Fund (DWSRF) loan that has already been approved for the E. Division Tank Pump Station and Piping project, revenue bonds have been used as the debt funding instrument in this analysis. The capital financing strategy developed to fund the CIP identified in this WSP assumes the following funding resources:

- Accumulated cash reserves
- Transfers of excess cash (over minimum balance targets) from the Revenue Fund
- Transfers of excess cash (after 30% of annual debt service is covered) from the System Development Fund
- Annual cash from rates earmarked for routine capital funding
- Interest earned on Major Capital Fund balances and other miscellaneous capital resources

- DWSRF loan that has been approved
- Revenue bond financing

Based on information provided by the District, the water utility began 2013 with \$10.39 million in the Revenue Fund and \$2.12 million in the Major Capital Fund. This financial analysis is based on the assumption that additional funds beyond the Revenue Fund target of 2-1/2 months of operations and maintenance (O&M) expenses plus depreciation are transferred to the Major Capital Fund. Routine capital funding is budgeted at \$3.26 million in 2013, increasing to \$8.05 million to match depreciation by 2033. Again, this financial analysis is based on the assumption that the System Development Fund transfers to the Major Capital Fund are below \$100,000 in 2014–2022 and increase steadily to \$1.06 million in 2033.

The resources described above are forecasted to fund 100% of the 20-year CIP. Table 11-5 presents the corresponding 20-year capital financing strategy.

**Table 11-5. 20-Year Capital Funding Strategy**

Year	Capital Expenditures 2013\$	Capital Expenditures Escalated	DWSRF Loan Financing	Revenue Bond Financing	Cash Funding	Total Financial Resources
2014	\$ 4,360,000	\$ 4,497,927	\$ -	\$ -	\$ 4,497,927	\$ 4,497,927
2015	16,900,000	17,986,159	10,004,050	-	7,982,109	17,986,159
2016	8,990,000	9,870,458	-	9,870,458	-	9,870,458
2017	13,325,000	15,092,830	-	7,029,542	8,063,288	15,092,830
2018	9,125,000	10,662,577	-	10,662,577	-	10,662,577
2019	9,800,000	11,813,573	-	837,423	10,976,150	11,813,573
<b>Subtotal</b>	<b>\$ 62,500,000</b>	<b>\$ 69,923,524</b>	<b>\$ 10,004,050</b>	<b>\$ 28,400,000</b>	<b>\$ 31,519,474</b>	<b>\$ 69,923,524</b>
2020-2033	75,900,000	114,858,708	-	3,700,000	111,158,708	114,858,708
<b>Total</b>	<b>\$ 138,400,000</b>	<b>\$ 184,782,232</b>	<b>\$ 10,004,050</b>	<b>\$ 32,100,000</b>	<b>\$ 142,678,182</b>	<b>\$ 184,782,232</b>

The 20-year capital funding plan identifies 77.21% cash funding for capital projects. The remaining capital costs are projected to be covered 5.41% by a DWSRF Loan and 17.37% by revenue bond financing. This type of planning looks at average growth over the 20-year period and does not take into consideration the current economic conditions, which can have a negative impact on annual growth. It is assumed that if growth is not occurring at the planned rate, the timing of capital projects would be adjusted accordingly.

## 11.4 Available Funding Assistance and Financing Resources

Feasible long-term capital funding strategies must be defined to ensure that adequate resources are available to fund the CIP identified in this WSP. In addition to the District’s resources such as accumulated cash reserves, capital revenues, and rate revenues designated for capital purposes, capital needs can be met from outside sources such as grants, low-interest loans, and bond financing. The following is a summary of the District’s internal and external resources.

### **11.4.1 District Resources**

Resources appropriate for funding capital needs include accumulated cash in the Major Capital Fund, rate revenues designated for capital spending purposes, and capital-related charges such as the System Development Fee (SDF). The first two resources are discussed in the Fiscal Policies section (11.5.2) of the Financial Forecast. Capital-related charges are discussed below.

#### **11.4.1.1 Capital Connection Charges**

A connection charge such as the SDF refers to a one-time charge imposed on new customers as a condition of connecting to the water system. The purpose of the connection charge is two-fold: to promote equity between new and existing customers, and to provide a source of revenue to fund capital projects. Revenue can only be used to fund utility capital projects or to pay debt service incurred to finance those projects. The District currently charges an SDF for all new metered water services. The cost is \$4,005 for a 5/8-inch meter times a meter capacity weighting factor as identified in the AWWA C-700 and C-702 standards, and rounded to the nearest \$5.00 increment.

#### **11.4.1.2 Location Facilities Charges**

While a connection charge is the manner in which new customers pay their share of general facilities costs, local facilities funding is used to pay the costs of local facilities that connect each property to the system's infrastructure. Local facilities funding is often overlooked in rate forecasting because it is funded upfront by either connecting customers, developers, or through an assessment to properties, but never from rates.

A number of mechanisms can be considered toward funding local facilities. One of the following scenarios typically occurs: (a) the utility charges a connection fee based on the cost of the local facilities (under the same authority as the SDF); (b) a developer funds extension of the system to its development and turns those facilities over to the utility (contributed capital); or (c) a local assessment is set up called a Utility Local Improvement District (ULID/LID) or a Local Utility District (LUD) that collects tax revenue from benefited properties.

A local facilities charge (LFC) is a variation of the connection charge. It is a District-imposed charge to recover the cost related to service extension to local properties. Often called a front-footage charge and imposed on the basis of footage of the main "fronting" a particular property, it is usually implemented as a reimbursement mechanism to a District for the cost of a local facility that directly serves a property. It is a form of connection charge and thus can accumulate up to 10 years of interest. It typically applies in instances when no developer-installed facilities are needed through developer extension due to the prior existence of available mains already serving the developing property.

The developer extension is a requirement that a developer install on-site and sometimes off-site improvements as a condition of extending service. These are in addition to the connection charge required and must be built to District standards. Part of the agreement between the District and the



developer planning to extend service might include a late-comer agreement, resulting in a late-comer charge to new connections to the developer extension.

Late-comer charges are a variation of developer extensions whereby new customers connecting to a developer-installed improvement make a payment to the District based on their share of the developer's cost. The District passes this charge on to the developer who installed the facilities. As part of the developer extension process, this defines the allocation of costs and records late-comer obligations on the title of affected properties. No interest is allowed, and the reimbursement agreement cannot exceed 20 years in duration.

LID/ULID is another mechanism for funding infrastructure that assesses benefited properties based on the special benefit received by the construction of specific facilities. Most often used for local facilities, some ULIDs also recover related general facilities costs. Substantial legal and procedural requirements can make this a relatively expensive process, and there are mechanisms by which a ULID can be rejected.

#### **11.4.2 Outside Resources**

This section outlines various grant, loan, and bond opportunities available to the District through federal and state agencies to fund the CIP identified in the WSP.

##### **11.4.2.1 Grants and Low Cost Loans**

Historically, federal and state grant programs were available to local utilities for capital funding assistance. However, these assistance programs have been mostly eliminated, substantially reduced in scope and amount, or replaced by loan programs. Remaining miscellaneous grant programs are generally lightly funded and heavily subscribed. Nonetheless, even the benefit of low-interest loans makes the effort of applying worthwhile. Grants and low-cost loans for Washington State utilities are available from the Department of Commerce including two assistance programs that the District may be eligible for.

**Public Works Trust Fund (PWTF)** – Cities, towns, counties, and special purpose districts are eligible to receive loans from the PWTF for water, sewer, storm, roads, bridges, and solid waste/recycling construction projects to address critical needs. Due to current funding restrictions and funding allocations, the Public Works Board has suspended the non-Construction Programs. As the economy builds, the Board will attempt to re-institute these programs. Currently, Construction Loans are available only for drinking water, sanitary sewer, storm water, and solid waste/recycling.

PWTF loans are available at interest rates ranging from 0.50 to 2.00% depending on the repayment term. The standard loan offer is 1.00% interest repaid over a 20-year term. All loan terms are subject to negotiation and Board approval. Due to changes in 2012, a local match is no longer required. Currently, the maximum loan amount is \$5 million per jurisdiction.

However, due to legislative budget changes made on June 30, 2013, the 2014 Construction Loan cycle did not receive funding. The Legislature also passed a statute with the intent of redirecting tax revenue from the Public Works Assistance Account for 6 years to the state General Fund. Loan repayment revenues will continue to be available in future biennia. The effect of this diversion will result in a decrease in funding available to local governments for high-priority infrastructure projects from the Public Works Trust Fund. The Board does expect to accept applications for funding for the next biennium. Information regarding the application process as well as rates and terms will be posted on its website in 2014.

Further detail is available at <http://www.pwb.wa.gov>.

**Drinking Water State Revolving Fund (DWSRF) Loan Program** – Funding historically targets protection of public health, compliance with drinking water regulations, and assistance for small and disadvantaged communities. Low interest rates provided are 1.0 – 1.5% and no local match is required.

All public water systems that receive loans or grants for infrastructure are also required to complete an Investment Grade Efficiency Audit (IGEA). This is an effort to apply energy efficiency to water systems, similar to DOH's Green Projects that were started in 2009, and may be financed as part of the DWSRF loan.

In 2012 there were 105 applicants requesting over \$218 million. After the scoring and ranking process that addressed the most serious risks to public health, 54 applicants were approved for \$130 million, including 13 approved to receive principal forgiveness.

The DWSRF Loan Program generally accepts applications from January through March 1 annually. It takes about 6 months to find out which loans have been approved.

Further detail is available at <http://www.doh.wa.gov>.

#### **11.4.2.2 Bond Financing**

**General Obligation Bonds** – General Obligation (G.O.) bonds are bonds secured by the full faith and credit of the issuing agency, committing all available tax and revenue resources to debt repayment. With this high level of commitment, G.O. bonds have relatively low interest rates and few financial restrictions. However, the authority to issue G.O. bonds is restricted in terms of the amount and use of the funds, as defined by Washington constitution and statute. Specifically, the amount of debt that can be issued is linked to assessed valuation.

The District has the authority to issue G.O. bonds under the authority of RCW 54.24.020. In addition, RCW 54.24.018 states:

*“In the event the proposed general indebtedness to be incurred will bring the nonvoter approved indebtedness of the public utility district to an amount exceeding three-fourths of one percent of the value of the taxable property of the public utility district, ... the proposition of incurring such indebtedness and the proposed plan or system shall be submitted to the qualified electors of said public utility district for their approval or rejection at the next general election held in such public utility district.”*

While bonding capacity can limit availability of G.O. bonds for utility purposes, these can sometimes play a valuable role in project financing. A rate savings may be realized through two avenues: the lower interest rate and related bond costs, and the extension of repayment obligation to all tax-paying properties (not just developed properties) through the authorization of an *ad valorem* property tax levy.

**Revenue Bonds** – Revenue bonds are commonly used to fund utility capital improvements. The debt is secured by the revenues of the issuing utility. With this limited commitment, revenue bonds typically bear higher interest rates than G.O. bonds and also require security conditions related to the maintenance of dedicated reserves (a bond reserve) and financial performance (added bond debt service coverage). The District agrees to satisfy these requirements by resolution as a condition of bond sale.

Revenue bonds can be issued in Washington without a public vote. There is no bonding limit, except perhaps the practical limit of the utility’s ability to generate sufficient revenue to repay the debt and provide coverage. In some cases, poor credit might make issuing bonds problematic.

## 11.5 Financial Forecast

The financial forecast, or revenue requirement analysis, forecasts the amount of annual revenue that needs to be generated by user rates. The analysis incorporates operating revenues, O&M expenses, debt service payments, rate-funded capital needs, and any other identified revenues or expenses related to operations. The objective of the financial forecast is to evaluate the sufficiency of the current level of rates. In addition to annual operating costs, the revenue needs also include debt covenant requirements and specific fiscal policies and financial goals of the District.

The analysis determines the amount of revenue needed in a given year to meet that year’s expected financial obligations. For this analysis, two revenue sufficiency tests have been developed to reflect the financial goals and constraints of the District: cash needs must be met, and debt coverage requirements must be realized. In order to operate successfully with respect to these goals, both tests of revenue sufficiency must be met.

**Cash Test** – The cash flow test identifies all known cash requirements for the District in each year of the planning period. Typically these include O&M expenses, debt service payments, depreciation funding or directly funded capital outlays, and any additions to specified reserve balances. The total annual cash needs of the District are then compared to projected cash revenues using the current rate structure. Any projected revenue shortfalls are identified and the rate increases necessary to make up the shortfalls are established.

**Coverage Test** – The coverage test is based on a commitment made by the District when issuing revenue bonds and some other forms of long-term debt. For purposes of this analysis, revenue bond debt is assumed for any needed debt issuance. As a security condition of issuance, the District would be required per covenant to agree that the revenue bond debt would have a higher priority for payment (a senior lien) compared to most other expenditures; the only outlays with a higher lien are O&M expenses. Debt service coverage is expressed as a multiplier of the annual revenue bond debt service payment. For example, a 1.0 coverage factor would imply that no additional cushion is required. A 1.25 coverage factor means revenue must be sufficient to pay O&M expenses, annual revenue bond debt service payments, plus an additional 25% of annual revenue bond debt service payments. The excess cash flow derived from the added coverage, if any, can be used for any purpose, including funding capital projects. Targeting a higher coverage factor can help the District achieve a better credit rating and provide lower interest rates for future debt issues.

In determining the annual revenue requirement, both the cash and coverage sufficiency test must be met and the test with the greatest deficiency drives the level of needed rate increase in any given year.

### 11.5.1 Current Financial Structure

The District maintains a fund structure and implements financial policies that target management of a financially viable and fiscally responsible water system.

### 11.5.2 Fiscal Policies

A brief summary of the key financial policies employed by the District, as well as those recommended and incorporated in the financial program, is provided below.

**Minimum Fund Balances** – Operating reserves are designed to provide a liquidity cushion to ensure that adequate cash working capital will be maintained to deal with significant cash balance fluctuations such as seasonal fluctuations in billings and receipts, unanticipated cash expenses, or lower than expected revenue collections. The District’s current policy is to maintain a minimum balance in the Revenue Fund equal to 2-1/2 months of O&M plus depreciation. This target is reasonable for a water system, given the variability in revenue collections due to changing weather patterns that can significantly affect revenue collections during the summer season.

A capital contingency reserve is an amount of cash set aside in case of an emergency should a piece of equipment or a portion of the utility's infrastructure fail unexpectedly. The reserve also could be used for other unanticipated capital needs including capital project cost overruns. Industry practices range from maintaining a balance equal to 1 to 2% of fixed assets, an amount equal to a 5-year rolling average of CIP costs, or an amount determined sufficient to fund equipment failure (other than catastrophic failure). The final target level should balance industry standards with the risk level of the District. The District does not currently have a policy to maintain a minimum balance in the Major Capital Fund, but the higher than average operating fund minimum balance makes this reasonable. In addition, the District aims to keep total net liquidity above 180 days of O&M expenditures and capital replacement (depreciation less debt service) and is forecast to be only slightly below this target in 2015.

**System Reinvestment** – The purpose of system reinvestment funding is to provide for the replacement of aging system facilities to ensure sustainability of the system for ongoing operation. Each year, the District's assets lose value, and as they lose value they are moving toward eventual replacement. That accumulating loss in value and future liability is measured for reporting purposes through annual depreciation expense, which is based on the original cost of the asset. While this reported expense reflects the consumption of the existing asset and its original investment, the replacement of that asset will likely cost much more, factoring in inflation and construction conditions. Therefore, the added annual replacement liability is even greater than the annual depreciation expenses.

The District has historically funded system reinvestment at varying levels. In this analysis, the routine capital expense for system reinvestment starts at \$3.26 million per year and increases to \$8.05 million in 2033, which is equal to depreciation. This analysis assumes that these monies are put directly into the Major Capital Fund and are made available for capital project costs.

**Debt Management** – It is prudent to consider policies related to debt management as part of broader utility financial policy structure. Debt management policies should be evaluated and formalized including the level of acceptable outstanding debt, debt repayment, bond coverage, and total debt coverage targets. The District's existing bond covenants require a minimum 1.25 debt coverage test; however, the target set by the District is 2.0, which is met throughout the forecast.

### **11.5.2.1 Financial Forecast**

The financial forecast is developed from 2013 budget documents along with other key factors and assumptions to develop a complete portrayal of the District's annual financial obligations. The following is a list of the key revenue and expense factors and assumptions used to develop the financial forecast:

- **Revenue** – The District has two general revenue sources: revenue from charges for service (rate revenue) and miscellaneous (non-rate) revenue. In the event of a forecasted annual shortfall, rate revenue can be increased to meet the annual revenue requirement. Non-rate revenues are

forecast to increase with customer growth or not escalate depending on the nature of the revenue.

- **System Development Fee Revenue** – The current SDF of \$4,005 is expected to increase annually based on construction cost inflation and to generate between \$773,000 in 2014 and \$2.07 million in 2033 collected from 187 to 277 new connections. This money is used to fund growth-related capital projects and to pay up to 30% of debt service incurred to finance those projects.
- **Growth** – Rate revenue is escalated based on the growth rates provided in Chapter 4 of this WSP, which average 0.81% per year through 2019 and 1.00% per year thereafter.
- **Expenses** – O&M expense projections are based on the 2013 budget and are forecasted to increase with general and labor cost inflation of 2.07%, construction cost inflation of 3.16%, and benefit cost inflation of 10.00%. Budget 2013 figures were used for 2013 taxes; future taxes are calculated based on forecasted revenues and prevailing tax rates.
- **Existing Debt** – The District currently has a total of 11 outstanding debt issues, including three revenue bonds, three PWTF loans, and five DWSRF loans. Revenue bond annual payments range from \$1.34 million decreasing to \$365,000 and expire between 2016 and 2029. PWTF annual payments range from \$1.33 million decreasing to \$170,000 and expire between 2021 and 2031. DWSRF annual payments range from \$304,000 to \$117,000 and expire in 2021 and 2022.
- **Future Debt** – The capital financial strategy developed for this WSP forecasts the need to issue \$42.10 million new debt in amounts ranging from \$3.70 million to \$16.90 million. Other than the \$10.00 million DWSRF loan that has already been approved, the analysis performed assumes all revenue bond financing.
- **Revenue Bond Assumptions** – The forecast assumes a revenue bond interest rate of 5.0%, an issuance cost of 1.5%, and a term of 20 years.
- **Transfer to Capital** – Any Operating Fund balance above the minimum requirement is assumed to be available to fund capital projects and is projected to be transferred to the Capital Fund in most years. The 2013 Operating Fund balance is expected to end the year at 209 days of O&M expenses plus depreciation, well above the minimum target for that year. The Capital Fund balance is expected to end the year at approximately \$4.13 million.

Although the financial plan is completed for the 20-year time horizon of this WSP, the rate strategy focuses on the shorter-term planning period 2014 through 2019. It is imperative that the District revisit the proposed rates every 2 to 3 years to ensure that the rate projections developed remain adequate. Any significant changes should be incorporated into the financial plan and future rates should be adjusted as needed.

Table 11-6 summarizes the annual revenue requirements based on the forecast of revenues, expenditures, fund balances, and fiscal policies.

**Table 11-6. 6-Year Financial Forecast**

<b>Revenue Requirement</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Revenues</b>						
Rate Revenues Under Existing Rates	\$ 16,054,846	\$ 16,177,051	\$ 16,301,207	\$ 16,425,362	\$ 16,550,818	\$ 16,677,573
SDF Revenue Towards Debt	770,928	801,320	835,819	863,730	900,060	937,450
Rate Stabilization Revenue	-	-	-	-	-	-
Non-Rate Revenues	852,267	871,196	876,605	903,712	909,975	926,039
<b>Total Revenues</b>	<b>\$ 17,678,041</b>	<b>\$ 17,849,567</b>	<b>\$ 18,013,631</b>	<b>\$ 18,192,804</b>	<b>\$ 18,360,853</b>	<b>\$ 18,541,063</b>
<b>Expenses</b>						
Cash Operating Expenses	\$ 11,868,263	\$ 12,113,061	\$ 12,363,403	\$ 12,709,335	\$ 12,928,610	\$ 13,197,268
Existing Debt Service	2,965,108	2,980,095	2,971,158	2,962,609	2,751,807	2,027,030
New Debt Service	-	150,061	2,125,299	2,118,153	3,130,938	3,123,792
Routine Capital	3,300,000	3,300,000	3,300,000	3,300,000	3,300,000	4,500,000
<b>Total Expenses</b>	<b>\$ 18,133,371</b>	<b>\$ 18,543,216</b>	<b>\$ 20,759,860</b>	<b>\$ 21,090,096</b>	<b>\$ 22,111,355</b>	<b>\$ 22,848,090</b>
<b>Net Surplus (Deficiency)</b>	<b>\$ (455,330)</b>	<b>\$ (693,649)</b>	<b>\$ (2,746,229)</b>	<b>\$ (2,897,293)</b>	<b>\$ (3,750,502)</b>	<b>\$ (4,307,027)</b>
% of Rate Revenue	2.84%	4.29%	16.85%	17.64%	22.66%	25.83%
<b>Annual Rate Adjustment</b>	<b>0.00%</b>	<b>8.00%</b>	<b>8.00%</b>	<b>8.00%</b>	<b>4.00%</b>	<b>4.00%</b>
<b>Cumulative Annual Rate Adjustment</b>	<b>0.00%</b>	<b>8.00%</b>	<b>16.64%</b>	<b>25.97%</b>	<b>31.01%</b>	<b>36.25%</b>
Rate Revenues After Rate Increase	\$ 16,054,846	\$ 17,471,215	\$ 19,013,728	\$ 20,691,226	\$ 21,683,234	\$ 22,723,269
Additional Taxes from Rate Increase	\$ -	\$ 65,084	\$ 136,413	\$ 214,530	\$ 258,109	\$ 304,038
<b>Net Cash Flow After Rate Increase</b>	<b>(455,330)</b>	<b>535,431</b>	<b>(170,121)</b>	<b>1,154,041</b>	<b>1,123,805</b>	<b>1,434,630</b>
Coverage After Rate Increases	3.83	4.66	2.62	3.11	2.59	3.48

In place of a rate increase in 2013, the District added a capital improvement surcharge that has been included in the non-rate revenue shown above. The rate revenues under existing rates in the table above include an 8.0% rate increase effective January 1, 2014 that is applied equally to all customer classes except for the contracted Sierra Pacific Industries customer. Future increases are assumed to be applied equally to all customers. The financial forecast indicates the need for additional rate increases of 8.0% per year in 2015 through 2017 followed by 4.0% per year increases in 2018 and 2019. The 2014 rate increase is required to cover the existing level of O&M expenses and rebuild adequate ending fund balance targets, while the following increases are there to support new debt service needed to fund the capital program.

### 11.5.3 District Funds and Reserves

Table 11-7 shows a summary of the projected Revenue Fund and Major Capital Fund ending balances through 2019 based on the rate forecasts presented above. The combined minimum target balance is based on 2-1/2 months of O&M plus depreciation and the funds remain above the target throughout the forecast.

**Table 11-7. Ending Cash Balance Summary**

<b>Ending Fund Balances</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Revenue Fund	\$ 5,892,750	\$ 3,928,181	\$ 3,616,770	\$ 3,751,725	\$ 3,841,835	\$ 3,947,029
Major Capital Fund	2,942,339	975,903	11,458,109	801,657	5,983,942	63,635
<b>Total</b>	<b>\$ 8,835,089</b>	<b>\$ 4,904,084</b>	<b>\$ 15,074,878</b>	<b>\$ 4,553,382</b>	<b>\$ 9,825,777</b>	<b>\$ 4,010,664</b>
<i>Combined Minimum Target Balance</i>	<i>3,397,546</i>	<i>3,523,488</i>	<i>3,616,770</i>	<i>3,751,725</i>	<i>3,841,835</i>	<i>3,947,029</i>

## 11.6 Current and Projected Rates

### 11.6.1 Current Rates

The District's current rate structure consists of three rate components:

1. A fixed monthly charge based on meter size
2. A variable monthly charge per hundred cubic feet (ccf)
3. A fixed capital improvement surcharge

The variable monthly charge has three blocks that include one block for usage up to 3 ccf, a second block for usage between 4 and 100 ccf, and a third block for usage over 100 ccf. The capital improvement surcharge is a fixed charge per account per month. Table 11-8 shows the existing rate structure.



**Table 11-8. 2013 Existing Rate Structure**

<b>Monthly Basic Fixed Charge</b>	
5/8-inch	\$ 18.10
3/4-inch	18.10
1-inch	30.20
1.5-inch	60.15
2-inch	96.10
3-inch	180.15
4-inch	300.00
6-inch	599.90
8-inch	959.75
<b>Consumption Charges</b>	
<b>Single-Family &amp; Duplex</b>	
0-3 ccf	\$ 2.00
4-100 ccf	3.14
101 +	1.83
<b>All Others</b>	
0-3 ccf	\$ 3.14
4-100 ccf	3.14
101 +	1.83
<b>Capital Improvement Surcharge</b>	
All Accounts	\$ 1.25

### 11.6.2 Projected Rates

As stated above, the District added a capital improvement surcharge in place of a rate increase in 2013. The analysis for this WSP shows that if the surcharge remains in effect at the same rate, this would be followed by increases of 8.0% per year in 2014 through 2017, and 4.0% per year in 2018 and 2019. Table 11-9 shows the proposed rates for the 6-year planning period.

**Table 11-9. 6-Year Proposed Rates**

	Existing	Proposed					
	2013	2014	2015	2016	2017	2018	2019
<b>Monthly Basic Fixed Charge</b>							
5/8-inch	\$ 18.10	\$ 19.55	\$ 21.11	\$ 22.80	\$ 24.63	\$ 25.61	\$ 26.64
3/4-inch	18.10	19.55	21.11	22.80	24.63	25.61	26.64
1-inch	30.20	32.62	35.23	38.05	41.09	42.74	44.44
1.5-inch	60.15	64.96	70.16	75.77	81.83	85.10	88.51
2-inch	96.10	103.79	112.09	121.06	130.75	135.98	141.41
3-inch	180.15	194.56	210.12	226.93	245.09	254.89	265.09
4-inch	300.00	324.00	349.92	377.91	408.15	424.47	441.45
6-inch	599.90	647.89	699.72	755.70	816.15	848.80	882.75
8-inch	959.75	1,036.53	1,119.45	1,209.01	1,305.73	1,357.96	1,412.28
<b>Consumption Charges</b>							
Single-Family & Duplex							
0-3 ccf	\$ 2.00	\$ 2.16	\$ 2.33	\$ 2.52	\$ 2.72	\$ 2.83	\$ 2.94
4-100 ccf	3.14	3.39	3.66	3.95	4.27	4.44	4.62
101 +	1.83	1.98	2.14	2.31	2.49	2.59	2.70
All Others							
0-3 ccf	\$ 3.14	\$ 3.39	\$ 3.66	\$ 3.95	\$ 4.27	\$ 4.44	\$ 4.62
4-100 ccf	3.14	3.39	3.66	3.95	4.27	4.44	4.62
101 +	1.83	1.98	2.14	2.31	2.49	2.59	2.70
<b>Capital Improvement</b>							
All Accounts	\$ 1.25	\$ 1.25	\$ 1.25	\$ 1.25	\$ 1.25	\$ 1.25	\$ 1.25

Table 11-10 shows single-family monthly bill comparisons for the proposed annual increases.

**Table 11-10. Monthly Bill Comparison**

	Existing	Proposed					
	2013	2014	2015	2016	2017	2018	2019
<b>Single-Family</b>							
Monthly Bill	\$ 34.77	\$ 37.45	\$ 40.35	\$ 43.47	\$ 46.85	\$ 48.68	\$ 50.57
\$ Difference		\$ 2.68	\$ 2.90	\$ 3.13	\$ 3.38	\$ 1.82	\$ 1.90
Rate Increase		8.00%	8.00%	8.00%	8.00%	4.00%	4.00%

**Note:** Assumes 5/8" meter and 6 ccf monthly usage plus capital improvement surcharge

## 11.7 Affordability

The Department of Health and the Department of Commerce Public Works Board use an affordability index to prioritize low-cost loan awards depending on whether rates exceed 2.0% of the median household income for the service area. The District serves multiple cities and towns, with the greatest population of customers in Mount Vernon, Sedro-Woolley, and Burlington. The weighted average median household income for these cities was \$53,302 in 2007 – 2011 according to U.S. Census Bureau data. The 2011 figures are escalated based on the assumed 2.07% general cost inflation to show the median household income in future years. Table 11-11 presents the District's

rates with the projected rate increases for the forecast period, tested against the 2.0% monthly affordability threshold.

**Table 11-11. Affordability Test**

Year	Inflation	Median HH Income	2% Monthly Threshold	Projected Monthly Bill	% of Median HH Income
2011		\$ 53,302	\$ 88.84		
2012	2.07%	54,405	90.68		
2013	2.07%	55,531	92.55	34.77	0.75%
2014	2.07%	56,681	94.47	37.45	0.79%
2015	2.07%	57,854	96.42	40.35	0.84%
2016	2.07%	59,052	98.42	43.47	0.88%
2017	2.07%	60,274	100.46	46.85	0.93%
2018	2.07%	61,522	102.54	48.68	0.95%
2019	2.07%	62,795	104.66	50.57	0.97%

Applying the 2.0% test, the District’s rates are forecast to remain within the indicated affordability range through 2019.

## 11.8 Conclusion

The results of this analysis indicate that rate increases are necessary to fund ongoing operating needs and future debt requirements to fund the CIP. Implementation of the proposed rate increases should provide for continued financial viability while maintaining generally affordable rates.

It is important to remember that the analysis performed in this chapter assumes growth rates from Chapter 4 of this WSP. If the future growth rates change, the proposed annual rate increases may need to be updated and revised.

It is recommended that the District regularly review and update the key underlying assumptions that compose the multi-year financial plan to ensure that adequate revenues are collected to meet the District’s total financial obligations.

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