

Chapter 7 - Project Financing and Implementation

Introduction

This chapter evaluates the financial status of the City of Stanfield's Water Department and outlines alternatives for financing water system improvements should the City elect to pursue system improvements. A summary of state and federal funding programs is presented, including a review of funding options potentially available to the City for water system improvements. To construct some or all of the recommended improvements, a financing plan acceptable to the City of Stanfield must be developed to complete the improvements.

Although a detailed analysis of the City's current water rate structure is beyond the scope of this Water System Master Plan (WSMP), some discussion of the existing rate structure and current and future water system budgets is included. As a general rule, most utility rate structures include funding for periodic minor system improvements and maintenance, staff payroll costs, and set-aside for future improvements.

Current Water Use Rates and Revenues

Operation and maintenance of the existing water system is financed through the City's annual budget. Revenue is obtained from water user and connection fees.

Water Use Rates

The current water rate for residential and commercial services inside the city limits is determined by meter size, consumption, and total equivalent dwelling units (EDUs). Each metered water service is charged a monthly service fee based on the water meter size impact factor. Users are also charged at the rate of \$1.50 per 1,000 gallons of consumption. Water consumed is billed in increments of 200 gallons at \$0.30 per increment. Lastly, each water user's bill is determined by the number of the EDUs, less one, times \$26.00. The City's Resolution No. 8-2013, approving the June 2013 rate structure, is located in Appendix I.

The revenue generated from the City's water rates, interest income, connection fees, turn-on fees, and franchise fees is presented on Table 7-1. Water rate revenue generated in fiscal year 2015-16 was \$417,705. Using an annual user fee revenue amount of \$417,705, and assuming 787 billed accounts, the City currently has an average monthly water user fee of approximately \$44.23 per account.

**TABLE 7-1
WATER DEPARTMENT REVENUE**

Fiscal Year	Water User Fee Revenue ¹	Total Revenue
2009-10	\$298,853	\$305,773
2010-11	\$289,554	\$293,095
2011-12	\$314,600	\$318,544

Fiscal Year	Water User Fee Revenue ¹	Total Revenue
2012-13	\$369,250	\$371,659
2013-14	\$425,034	\$430,388
2014-15	\$415,921	\$428,085
2015-16	\$417,705	\$429,869

¹Information obtained from audited financial statements for the City of Stanfield.

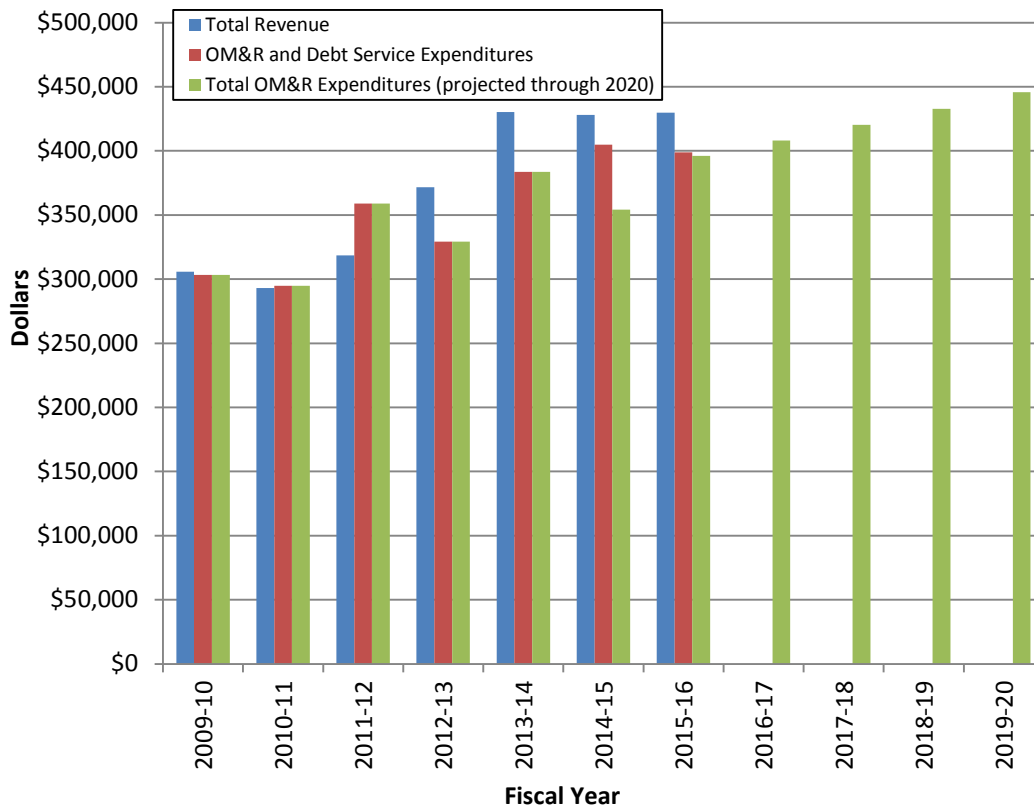
Current Financial Status

The annual cost of operating and maintaining the City's water system is summarized on Figure 7-1. The costs presented were obtained from the City's audits and include all costs for the water system, such as operation, maintenance, and replacement (OM&R) and staff payroll.

Historical and Projected Budget Trends

The City's Water Department revenues have exceeded annual OM&R and debt service expenditures for five of the seven years for which data were available. A graphical plot of the City of Stanfield's water system budget for the Water Department funds, showing total revenue and total expenditures, is presented on Chart 7-1. The total OM&R expenditures shown do not include interdepartmental and interfund transfers. The data excludes grant and loans accepted in fiscal years 2011 through 2015 for water system improvements.

**CHART 7-1
HISTORICAL AND PROJECTED CITY WATER BUDGET**



Projecting the annual increase in OM&R expenditures from 2010 to 2016, the expenditures in a future year can be estimated, assuming no significant changes in water system operations occur. The annual increase in expenditures for the City of Stanfield has been assumed to be 5 percent per year and indicates that OM&R expenditures will reach approximately \$446,000 by budget year 2019-20.

Transfers to Other Funds

In the past, the City has transferred funds from the Water Department Fund to the Utility Reserve Fund. These transfers are excluded as expenditures on Chart 7-1.

Existing Debt

The City has one debt service payment being paid from the Water Fund; the Business Oregon Safe Drinking Water Revolving Loan Fund (SDWRLF) is assumed to be the only Water Department-related debt. Details of the loan are shown on Table 7-2.

**TABLE 7-2
 WATER DEPARTMENT FUND EXISTING DEBT**

Financer	Project	Interest Rate	Maturity Date	2015-16 Principal	2015-16 Interest	2015-16 Balance
SDWRLF	Water System Improvements Project (2013)	1 Percent	December 1, 2045	\$37,389	\$12,389	\$1,237,498

Safe Drinking Water Revolving Loan Fund

In the fiscal year that ended June 2013, the City began to make draws on a loan agreement with Business Oregon. This loan is a part of a combination grant/loan agreement for water system improvements that included the construction of transmission lines, a new reservoir, well, and booster pump station. The total cost of the project was estimated to be approximately \$3.7 million. The initial amount of the loan given to the City to fund this project was \$2,033,457, of which \$721,500 was forgiven. The remaining \$1,311,957 loan carries an annual interest rate of 1 percent, and the term is approximately 30 years. Table 7-3 provides the future payments required from the Water Fund.

**TABLE 7-3
BUSINESS OREGON SDWRLF PAYMENTS FROM WATER FUND**

Fiscal Year Ending June 30	Principal	Interest	Total
2016	\$37,037	\$12,389	\$49,426
2017	37,408	12,019	49,427
2018	37,782	11,645	49,427
2019	38,159	11,267	49,426
2020	38,541	10,885	49,426
2021	40,023	10,813	50,836
2022-26	198,564	48,567	247,131
2027-31	208,693	38,439	247,132
2032-36	219,338	27,793	247,131
2037-41	203,527	16,605	247,132
2042-45	191,449	4,845	196,294

Capital Improvements Plan

During development of this WSMP, the City elected to take a Capital Improvements Plan (CIP) approach for completing water system improvements projects, meaning a portion of City funds is allocated each year to the Water System Improvement Fund to complete needed upgrades to the water system. At a City Council work session, the City indicated it would like to take this approach, if possible, with the recommended improvements in this WSMP. For this reason, the water system improvements outlined in Chapter 6 have been prioritized systematically so the most critical projects, related to the quality and reliability of the water system, are recommended to be completed first.

An analysis was completed to demonstrate a possible implementation schedule that the City could pursue to fund future improvements by increasing water rates. The analysis is shown on Figure 7-2. On this figure, rates are increased incrementally. For the high priority improvements, the rates are increased annually by approximately 18 percent between 2017 and 2024. To fund medium priority improvements, rates are increased annually by approximately 1 percent between 2025 and 2037. This analysis was completed as one possible example the City could use to fund improvements. Project cost inflation and an increase in operational costs are assumed to occur at 4 percent per year. It should be noted that this analysis is an estimation and actual future project costs could fall below or above the projected inflated costs on this figure.

Water System Improvements Funding

To pursue the recommended water system improvements discussed in Chapter 6, the City may choose to obtain outside funding assistance. A number of state and federal grant and loan programs can provide assistance on municipal improvement projects to utility districts, cities, and counties. These programs offer various levels of funding aimed at different types of projects. These include programs administered by the U.S. Department of Agriculture Rural Development (RD), the U.S. Economic Development Administration (EDA), Business Oregon, and others.

These agencies can provide low interest loan funding and possibly grant funding for assisting rural communities on public works projects. Some of the funding programs provide funding only if the improvements address documented water quality compliance issues. A summary of potential funding programs follows.

Summary of Potential Funding Programs

The following section briefly summarizes the primary funding programs available to assist the City with a water system improvements project. Most of these agencies will require an increase in water rates to support a loan for water system improvements both as a condition of receiving monies and prior to being considered for grant funds. The monthly user rates discussed in this section can represent a combination of monthly usage fees and taxes.

Federal Grant and Loan Programs

Rural Development

This agency can provide financial assistance to communities with a population of less than 10,000 through both loans and direct grants. Under the loan program, the agency purchases local bonds. The interest rate for these bonds is dependent on the median household income (MHI) of the community and other factors and varies from year to year based on other economic factors nationally. The fixed interest rate varies but is generally approximately 3.0 to 4.0 percent with a repayment period of up to 40 years. Applying for this type of funding is a fairly lengthy process involving development of an Environmental Report and a detailed funding application.

The agency presently requires communities to establish average residential user costs in the range of similar systems with similar demographics before the community qualifies for grant funds. Loans without grant funds may be acquired from RD that may not require rates to reach this level, depending on the results of an RD funding analysis. The user costs must provide sufficient revenue to pay for all system OM&R costs and pay for the local debt service incurred as a result of the project. All project costs above this level may be paid for by grant funds, up to given limits, which are usually no more than 45 percent of the total project cost. The objective of the RD loan/grant program is to keep the cost for utilities in small, rural communities consistent with what other communities are paying.

Another of the agency's requirements is that loan recipients establish a reserve fund of 10 percent of the bond repayment during the first 10 years of the project, which can make the net interest rate higher if such a reserve does not already exist. The RD program requires either revenue or general obligation bonds to be established through the agency for the project (refer to the Local Financing Options section of this chapter for further discussion). These bonds can usually be purchased for a period of 40 years, if desired. A combination loan and grant from RD may be an option for the City to implement water system improvements.

U.S. Economic Development Administration

The EDA has grant and loan funds similar to those available through Business Oregon's Special Public Works Fund (SPWF) program. Monies are available to public agencies to fund projects that stimulate the economy of an area, and the overall goal of the program is to create or retain jobs. The EDA has invested a great deal of money in Oregon to fund public works improvement projects in areas where new industries were locating or planned to locate in the future. In addition, the agency has a program known as the Public Works Impact Program to fund projects in areas with extremely high rates of unemployment. This program is targeted toward creating

additional jobs and reducing the unemployment rate in the area. If the City's water system improvements can be linked directly to industrial expansion or job retention, the City would be in a competitive position to receive funding under these EDA programs.

State Grant and Loan Programs

Business Oregon

Safe Drinking Water Revolving Loan Fund

This is primarily a loan program for the construction and/or improvement of public and private water systems to address regulatory compliance issues. This is accomplished through two separate programs: the SDWRLF for collection, treatment, distribution, and related infrastructure, and the Drinking Water Protection Loan Fund for protection of sources of drinking water prior to system intake. The SDWRLF program can lend a significant portion of projects, depending on the City's financial capability. Loan amounts greater than \$3 million or with more than \$750,000 principal forgiveness requires approval through the Business Oregon's Infrastructure Finance Authority (IFA) Board. The standard SDWRLF loan term is 20 years or the useful life of project assets, whichever is less. Loan terms up to 30 years may be available for "disadvantaged communities." This program offers subsidized interest rates for all successful projects. Interest rates for a standard loan start at 80 percent of the state/local bond rate. Interest rates for loans to disadvantaged communities are based on a sliding scale between the interest rate for a standard loan and 1 percent. Communities may be eligible for some of the principal on their SDWRLF loan to be "forgiven." This forgivable loan feature is similar to a grant and is offered to disadvantaged communities. Special consideration, including partial principal forgiveness, is provided to projects qualifying or having Green Project Reserve components. Although the City currently has a loan through this program, it is possible to receive additional funding from the SDWRLF. The SDWRLF program appears to be a potential funding source available to the City.

Water/Wastewater Financing Program

This is a loan and grant program that provides for the design and construction of public infrastructure when needed to ensure compliance with the Safe Drinking Water Act (SDWA) or the Clean Water Act (CWA). To be eligible, a system must have received, or is likely to soon receive, a notice of non-compliance by the appropriate regulatory agency associated with the SDWA or CWA.

While primarily a loan program, grants are available for municipalities that meet eligibility criteria. The loan/grant amounts are determined by financial analysis of the applicant's ability to afford a loan (debt capacity, repayment sources, current and projected utility rates, and other factors). The maximum loan term is 25 years or the useful life of the infrastructure financed, whichever is less. The maximum loan amount is \$10 million per project and is determined by financial review and may be offered through a combination of direct and/or bond-funded loans. Loans are generally repaid with utility revenues or voter-approved bond issues. A limited tax general obligation pledge may also be required. Creditworthy applicants may be funded through the sale of state revenue bonds. The

maximum grant is \$750,000 per project based on a financial analysis. An applicant is not eligible for grant funds if the applicant's annual MHI is equal to or greater than 100 percent of the state average MHI for the same year. In addition, an applicant is not eligible for grant funds if the applicant does not have a documented compliance issue that is in need of correction. At this time the City does not meet either of these requirements to be eligible for the Water/Wastewater Financing Program.

Community Development Block Grant Program

The primary objective of the Community Development Block Grant (CDBG) program is development of viable (livable) urban communities by expanding economic opportunities and providing decent housing and a suitable living environment principally for persons of low and moderate incomes.

This is a federally funded grant program. The state receives an annual allocation from Housing and Urban Development for the CDBG program. Grant funding is subject to applicant need, availability of funds, and any other restrictions in the state's Method of Distribution (i.e., program guidelines). It is not possible to determine how much, if any, grant funds may be awarded prior to an analysis of the application and financial information.

Eligibility for the CDBG program requires that greater than 51 percent of persons within the community fall into the low to moderate income (LMI) category. According to the City and County demographics utilized by Business Oregon, in 2016 the City of Stanfield had approximately 47.69 percent of the population within the LMI category. This puts the City below the threshold criteria to qualify for CDBG funds. However, an applicant is not eligible for grant funds if the applicant does not have a documented compliance issue that is in need of correction. At this time, the City is not aware of any compliance issues with its water system.

Special Public Works Fund

The SPWF program was established by the Oregon Legislature in 1985 to primarily provide loan funding for municipally owned infrastructure and other facilities that support economic and community development in Oregon. Loans and grants are available to municipalities for planning, designing, purchasing, improving, and constructing municipally owned facilities, replacing owned essential community facilities, and emergency projects as a result of a disaster.

For design and construction projects loans are primarily available; however, grants are available for and limited to projects that will create and/or retain traded-sector jobs. A traded-sector industry sells its goods or services into nationally or internationally competitive markets. The maximum grant award is \$500,000 or 85 percent of the project cost, whichever is less. The grant amount per project is based on up to \$5,000 per eligible job created or retained. Loans range in size from less than \$100,000 to \$10 million. The SPWF is able to offer very attractive interest rates that reflect tax-exempt market rates for creditors. Loan terms can be up to 25 years or the useful life of the project, whichever is

less. Unless the City of Stanfield can tie the needed improvements to job creation, the SPWF is not a likely funding source for water system improvements.

Business Oregon - Regional Development Officer

Since program eligibility and funds availability may change from year to year, potential applicants are encouraged to contact their respective Regional Development Officer to obtain the most accurate and up-to-date information for each program.

Preliminary Equivalent Dwelling Units

When projecting future revenue for a water system, an EDU analysis is usually completed. One EDU is intended to represent the average residential water use for a given city. As an example, a residential account in the City of Stanfield would represent one EDU.

The City bills according to meter size, consumption, and total EDUs as defined in Resolution 8-2013 (see Appendix I). Due to the different types of accounts that exist under this method of billing, the average cost per connection is established by utilizing the total revenue and total connections as shown on Table 7-4.

**TABLE 7-4
ESTIMATED AVERAGE MONTHLY USER FEE PER CONNECTION**

Water Sales Revenue ¹	\$417,705
Total Connections	787
Total Estimated Average Monthly Fee per Connection	\$44.23

¹Water sales revenue from 2016 audit.

Most funding agencies use EDUs as a basis for estimating future annual revenue and debt capacity for a city. The EDU determination is intended to equitably distribute water fees among all users. The EDU determination helps funding agencies determine the maximum loan (debt) amount a city can incur prior to being considered for grant funds for their water system improvements project. The analysis presented hereafter for the City's future water rate revenue and estimated debt capacity is based on the preliminary determination of 838 EDUs.

Debt Repayment Options and Loan Capacity

To determine the City's ability to fund a water system improvements project, Figures 7-3 and 7-4 were prepared. Several assumptions were made, as follow:

1. For Figure 7-3, water user fee revenue is based on the preliminary determination of 838 EDUs.
2. For Figure 7-3, OM&R costs for the budget year 2019-20 were set at \$446,000 per year. The budget year 2019-20 was used, as this would be the time period in which a project could begin construction. The OM&R costs were estimated using the historical expenditures and proposed inflation shown on Chart 7-1.
3. For Figures 7-3 and 7-4, future debt service was calculated based on RD financing (at 4 percent interest for a 40-year repayment period), the typical Business Oregon-based loan program (at 4 percent interest for a 20-year period), and the SDWRLF disadvantaged community allowance

(at 1 percent interest for 30-year planning period), depending on which financing program is able to assist the City.

4. Ten percent of the net annual funds available to service debt were set aside under the RD scenario to create a reserve account in accordance with RD requirements. Business Oregon does not require reserve funds to be set aside.

The data shown on Figure 7-3 provides a general idea of the amount of debt the City could afford to service with various average monthly user rates. The impact of various loan terms established by funding agencies on average monthly user rates is also shown on Figure 7-3. Figure 7-4 provides a general idea of the impact to property taxes for varying interest rates and loan amounts if the debt payment is supported only by property taxes.

This is only a preliminary analysis. The financial assumptions and figures presented in this WSMP should be refined as project implementation proceeds in the future and in the event agreements are worked out with funding agencies. If the City incurs further debt prior to obtaining loan or grant funds, these figures will need to be adjusted accordingly to reflect the debt payment requirements for the overall City budget.

Potential Rate Requirements to Fund System Improvements

To be eligible for RD grant and loan funds, the City must have average water use costs that are comparable to similar systems in the area. If the City chooses to evaluate potential funding sources and attends a "One Stop" meeting (discussed later in this chapter), RD will provide an estimate of the water rates required for the City of Stanfield to be eligible for low interest loans and grants.

Business Oregon is currently using 1.25 percent of a community's five-year MHI as the basis for residential monthly water user cost requirements to be eligible for grant funding. In the City's case, the five-year MHI is \$49,219. This MHI results in a required monthly residential water user cost of \$53.14 to qualify for low interest loan or grant funding. The City does not currently meet the 1.25 percent MHI threshold to obtain low interest loans and/or grant funds through Business Oregon (see the water rates resolution in Appendix I). However, additional rate increases may be required to fund the full scope of the recommended water system improvements.

Debt Repayment Using Property Tax Revenue

Property tax rates can also be used to repay water system improvements costs. Figure 7-4 lists the increases in property tax rates required to finance loan amounts solely with property taxes. Debt repayment may also be achieved by some combination of water user fees and property taxes. Refer to the Local Financing Options section of this chapter for further discussion of bonds paid via taxes.

Potential Project Funding Options

Based on the estimated costs provided herein, the City may elect to pursue loan funding. If a water system improvements project is pursued, it is recommended the City thoroughly investigate potential available funding sources to verify the best funding package is obtained for the project. It should be noted the City generally has to establish average residential water rates at or above 1.25 percent of the statewide MHI to qualify for low interest loan and/or grant funds provided by Business Oregon. In 2017, this would have required the City to have an average residential monthly rate of \$53.14 for consuming

7,500 gallons of water. The City's water rate structure currently does not meet this requirement by charging only \$44.23 per month for 7,500 gallons of water. Rate increases would likely be required for the City to be eligible for low interest loans and grants. This criterion can change on an annual basis.

One Stop Meeting and Project Notification and Intake Form

To evaluate all potential project funding options, a One Stop meeting is generally requested by a city. One Stop meetings are typically scheduled in Salem where representatives of Business Oregon and other funding agencies meet with the city to discuss the project and funding needs and identify the funding program best suited for the project. To avoid requiring city representatives to travel to Salem, Business Oregon has recently been holding these meetings locally. Business Oregon utilizes a Project Notification and Intake Form (PNIF) to outline a city's project, including the needs, project requirements, affected area, estimated project cost, time frame, schedule, etc. Business Oregon evaluates the project based on information presented on the PNIF to determine the best funding program suited to the project. The city is usually invited to submit a funding application to the best funding program(s) identified in the One Stop meeting.

Local Financing Options

Regardless of the ultimate project scope and agency from which funds are obtained, the City of Stanfield may need to develop authorization to incur debt (i.e., bonding) for the recommended improvements. The need to develop authorization to incur debt depends on funding agency requirements and provisions in the City Charter. The need for bonding by the City has been eliminated by most state funding programs. However, if a bond election is required, there are generally two options the City may use for its bonding authority: general obligation bonds and revenue bonds. General obligation bonds require a vote of the people to give the City the authority to repay the debt service through tax assessments, water revenues, or a combination of both. The City's taxing authority provides the guarantee for the debt. Revenue bonds are financed through revenues of the water system. Authority to issue revenue bonds can come in two forms. One would be through a local bond election similar to that needed to sell a general obligation bond, and the second would be through Council action authorizing the sale of revenue bonds, if the City Charter allows. If more than 5 percent of the registered voters do not object to the bonding authority resolution during a 60-day remonstrance period, the City would have authority to sell these revenue bonds.

Oregon law currently requires a 50 percent voter turnout to pass a bonded debt tax measure unless the election is held in November of an even-numbered year. November elections in even-numbered years require only a majority of those who voted to pass a bonded debt tax measure. Due to current tax measure limitations in Oregon, careful consultation with experienced, licensed bonding attorneys should occur if the City begins to obtain bonding authority for the recommended water system improvements.

Action Items and Implementation Schedule

To move forward with completing the water system improvements summarized in this WSMP, the following action items and implementation steps need to occur.

Action Items

- The City Council has formally adopted this WSMP and the associated priority improvements outlined in Chapter 6. Therefore, the City should implement priority improvements as sufficient funds are generated in the Water Department Fund and Water System Improvement Fund. An example of implementing priorities without obtaining outside funding is presented in Figure 7-2. This figure is an estimation and can be used by the City as a tool for planning future improvements.
- The City Council and staff should monitor the progress of water system improvements over the next five years. If sufficient revenue is not obtained, the City should consider pursuing outside funding assistance.

Recommended Improvements Summary Implementation Plan

The key to implementing the recommended improvements outlined in this WSMP is the ability of the City to develop appropriate reserves and/or outside funding, while working closely with its citizens to inform them of the water system needs and the necessity for increased water user rates.

Water system improvements as outlined in this WSMP are intended to provide the City with a reliable, quality water system that will meet the needs of the City for the planning period and beyond. As development occurs, water system improvements will help the City to meet new needs. With the CIP approach, the City can remain debt-free while completing the improvements projects. However, water rates will likely need to be raised to adequately fund the recommended system improvements over the 20-year planning period.

**CITY OF STANFIELD, OREGON
HISTORICAL WATER DEPARTMENT FUNDS**

Fiscal Year	Revenue			Expenditures						
	Water Sales Revenue	Other Income ¹	Total Revenue	Personnel Services	Materials and Services	Capital Outlay ²	Total OM&R Expenditures ³	Debt Service ⁴	Total Expenditures	Net Operating Income (Loss) ⁵
2009-10	\$ 298,853	\$ 6,920	\$ 305,773	\$ 142,387	\$ 147,867	\$ 12,940	\$ 303,194	\$ -	\$ 303,194	\$ 2,579
2010-11	289,554	3,541	293,095	151,245	124,901	18,707	294,853	-	294,853	(1,758)
2011-12	314,600	3,944	318,544	154,666	129,748	74,418	358,832	-	358,832	(40,288)
2012-13	369,250	2,409	371,659	155,197	173,974	-	329,171	-	329,171	42,488
2013-14	425,034	5,354	430,388	161,169	173,977	48,551	383,697	-	383,697	46,691
2014-15	415,921	12,164	428,085	177,762	176,319	-	354,081	50,836	404,917	23,168
2015-16	417,705	12,164	429,869	188,565	198,655	8,887	396,107	50,836	398,943	30,926

Notes:

¹ Other Income is from fund balances, service connection fees, new user fees, interest income, and other miscellaneous income. In fiscal years 2014-15 and 2015-16, transfers from other funds are excluded from revenue.

² Capital outlay spent using system project grant funds has been excluded from this analysis.

³ Refers to operation, maintenance, and replacement. Does not include transfers to other funds or Debt Service.

⁴ Includes Debt Service principal and interest.

⁵ Indicates a net operating loss for several years. These net losses are a result of transfers to other funds. For all seven years shown, Total Revenue exceeds Total OM&R Expenditures and Debt Service.



CITY OF
STANFIELD, OREGON
WATER SYSTEM MASTER PLAN
HISTORICAL WATER
DEPARTMENT FUNDS

**FIGURE
7-1**

**CITY OF STANFIELD, OREGON
WATER SYSTEM MASTER PLAN
WATER SYSTEM IMPROVEMENTS CAPITAL IMPROVEMENTS PLAN IMPLEMENTATION SCHEDULE**

Description	HIGH PRIORITY IMPROVEMENTS (YEARS 0 TO 10)											MEDIUM PRIORITY IMPROVEMENTS (YEARS 11 TO 20)									
				Priority No. 1	Priority No. 2	Priority No. 3	Priority No. 4	Priority No. 5	Priority No. 6	Priority No. 7	Priority No. 8				Priority No. 1	Priority No. 2	Priority No. 3	Priority No. 4	Priority No. 5	Priority No. 6	Priority No. 7
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Projected Department Revenue	\$ 434,413	\$ 513,893	\$ 607,915	\$ 719,140	\$ 850,714	\$ 858,413	\$ 866,182	\$ 874,022	\$ 881,932	\$ 889,914	\$ 897,968	\$ 906,095	\$ 914,295	\$ 922,570	\$ 930,920	\$ 939,345	\$ 947,847	\$ 956,425	\$ 965,081	\$ 973,816	\$ 1,100,830
Estimated Average User Rate (per month)	43.20	51.10	60.45	71.51	84.60	85.36	86.14	86.92	87.70	88.50	89.30	90.10	90.92	91.74	92.57	93.41	94.26	95.11	95.97	96.84	109.47
Estimated Annual Operating Costs	407,990	420,230	432,837	445,822	459,197	472,972	487,162	501,776	516,830	532,335	548,305	564,754	581,696	599,147	617,122	635,635	654,705	674,346	694,576	715,413	736,876
Prior Year Carryover		26,423	120,086	295,165	90,483	0	103,441	265,461	349,706	371,808	591,388	754,051	341,341	673,940	997,363	677,161	838,871	544,013	140,092	136,598	0
Amount Available for Project Funding	26,423	120,086	295,165	568,483	482,000	385,441	482,461	637,706	714,808	729,388	941,051	341,341	673,940	997,363	1,311,161	980,871	1,132,013	826,092	410,598	395,000	363,955
Total Estimated Project Cost				478,000	482,000	282,000	217,000	288,000	343,000	138,000	187,000				634,000	142,000	588,000	686,000	274,000	395,000	248,000
Year End Carryover	26,423	120,086	295,165	90,483	0	103,441	265,461	349,706	371,808	591,388	754,051	341,341	673,940	997,363	677,161	838,871	544,013	140,092	136,598	0	115,955

- NOTES:**
- Project implementation is subject to change pending availability of funds, emergencies, etc.
 - Rates and projected revenue are based on an estimated 838 equivalent dwelling units.
 - Project inflation and operating costs are assumed to occur at 4 percent per year.
 - Estimated average rates are required to increase by approximately 18 percent annually through 2024 to fund high priority improvements.
 - Estimated average rates are required to increase by approximately 1 percent from 2025 through 2037 to fund medium priority improvements.

**CITY OF STANFIELD, OREGON
PRELIMINARY WATER RATE ANALYSIS FOR LOAN CAPACITY
2019-20 BUDGET YEAR**

RATES	REVENUE	EXPENDITURES				FINANCING OPTIONS			
		Estimated OM&R Costs ³	Existing Debt Service Principal ⁴	Existing Debt Service Interest ⁴	Revenue Available for Future Debt Service ⁵	RD Loan Capacity ⁶	Typical Business Oregon Loan Capacity ⁷	SDWRLF Disadvantaged Community Capacity ⁸	
Base Rate ¹	User Fee Revenue ²								
\$ 44	\$ 442,464	\$ 446,000	\$ 38,541	\$ 10,885	-	-	-	-	
46	462,576	446,000	38,541	10,885	-	-	-	-	
48	482,688	446,000	38,541	10,885	-	-	-	-	
50	502,800	446,000	38,541	10,885	7,374	153,000	100,000	190,000	
52	522,912	446,000	38,541	10,885	27,486	572,000	374,000	709,000	
54	543,024	446,000	38,541	10,885	\$ 47,598	\$ 990,000	\$ 647,000	\$ 1,228,000	
56	563,136	446,000	38,541	10,885	67,710	1,409,000	920,000	1,747,000	
58	583,248	446,000	38,541	10,885	87,822	1,827,000	1,194,000	2,266,000	
60	603,360	446,000	38,541	10,885	107,934	2,245,000	1,467,000	2,786,000	
62	623,472	446,000	38,541	10,885	128,046	2,664,000	1,740,000	3,305,000	
64	643,584	446,000	38,541	10,885	148,158	3,082,000	2,014,000	3,824,000	
66	663,696	446,000	38,541	10,885	168,270	3,501,000	2,287,000	4,343,000	
68	683,808	446,000	38,541	10,885	188,382	3,919,000	2,560,000	4,862,000	
70	703,920	446,000	38,541	10,885	208,494	4,337,000	2,834,000	5,381,000	
72	724,032	446,000	38,541	10,885	228,606	4,756,000	3,107,000	5,900,000	
74	744,144	446,000	38,541	10,885	248,718	5,174,000	3,380,000	6,419,000	
76	764,256	446,000	38,541	10,885	268,830	5,593,000	3,653,000	6,938,000	
78	784,368	446,000	38,541	10,885	288,942	6,011,000	3,927,000	7,457,000	
80	804,480	446,000	38,541	10,885	309,054	6,429,000	4,200,000	7,976,000	

¹ The current base water rate is \$26.00 plus \$1.50 per 1,000 gallons of use.

² Revenue is based on an estimated monthly payment for each EDU by dividing the fiscal year 2015-16 water sales revenue by the number of EDUs (838).

³ Projected OM&R costs for budget year 2019-20. See Chart 7-1 in WSMP for projection.

⁴ Existing Debt Service Principal and Interest is from the City of Stanfield's fiscal year 2015-16 audit report, prepared by Cockburn & McClintock, LLC.

⁵ Revenue Available for Future Debt Service = Revenue - Estimated OM&R Costs - Existing Debt Service Principal and Interest.

⁶ Assumes loan funding at 4 percent for 40 years (loan capacity determined after 10 percent reserve payment removed from revenue available for Debt Service). Values rounded to nearest \$1,000.

⁷ Assumes loan funding at 4 percent for 20 years. Values rounded to the nearest \$1,000.

⁸ Assumes loan funding at 1 percent for 30 years. Values rounded to the nearest \$1,000.

EDU = equivalent dwelling unit

OM&R = operation, maintenance, and replacement

RD = Rural Development

SDWRLF = Safe Drinking Water Revolving Loan Fund

WSMP = Water System Master Plan



CITY OF
STANFIELD, OREGON
WATER SYSTEM MASTER PLAN
PRELIMINARY WATER RATE
ANALYSIS FOR LOAN CAPACITY

**FIGURE
7-3**

**CITY OF STANFIELD, OREGON
PRELIMINARY PROPERTY TAX ANALYSIS FOR
WATER SYSTEM BONDING CAPACITY
2015-16 BUDGET YEAR**

Typical Rural Development Loan

Loan Amount	Interest Rate ¹	Loan Period	Estimated Annual Payment	Estimated Annual Tax Rate Increase per \$1,000 ²	Estimated Annual Tax Increase for a \$100,000 Home	
					Monthly	Annual
\$ 1,000,000	4.0%	40 Years	\$ 50,500	\$ 0.66	\$ 5.50	\$ 66
2,000,000	4.0%	40 Years	101,000	1.31	10.92	131
3,000,000	4.0%	40 Years	151,500	1.97	16.42	197
4,000,000	4.0%	40 Years	202,000	2.63	21.92	263
5,000,000	4.0%	40 Years	252,500	3.29	27.42	329
6,000,000	4.0%	40 Years	303,000	3.94	32.83	394
7,000,000	4.0%	40 Years	353,500	4.60	38.33	460
8,000,000	4.0%	40 Years	404,000	5.26	43.83	526

Typical SDWRLF Loan

Loan Amount	Interest Rate ¹	Loan Period	Estimated Annual Payment	Estimated Annual Tax Rate Increase per \$1,000 ²	Estimated Annual Tax Increase for a \$100,000 Home	
					Monthly	Annual
\$ 1,000,000	4.0%	20 Years	\$ 73,600	\$ 0.96	\$ 8.00	\$ 96
2,000,000	4.0%	20 Years	147,200	1.92	16.00	192
3,000,000	4.0%	20 Years	220,800	2.87	23.92	287
4,000,000	4.0%	20 Years	294,400	3.83	31.92	383
5,000,000	4.0%	20 Years	368,000	4.79	39.92	479
6,000,000	4.0%	20 Years	441,600	5.75	47.92	575
7,000,000	4.0%	20 Years	515,200	6.70	55.83	670
8,000,000	4.0%	20 Years	588,800	7.66	63.83	766

SDWRLF for Disadvantaged Community Loan

Loan Amount	Interest Rate ¹	Loan Period	Estimated Annual Payment	Estimated Annual Tax Rate Increase per \$1,000 ²	Estimated Annual Tax Increase for a \$100,000 Home	
					Monthly	Annual
\$ 1,000,000	1.0%	30 Years	\$ 38,700	\$ 0.50	\$ 4.17	\$ 50
2,000,000	1.0%	30 Years	77,400	1.01	8.42	101
3,000,000	1.0%	30 Years	116,100	1.51	12.58	151
4,000,000	1.0%	30 Years	154,800	2.01	16.75	201
5,000,000	1.0%	30 Years	193,500	2.52	21.00	252
6,000,000	1.0%	30 Years	232,200	3.02	25.17	302
7,000,000	1.0%	30 Years	270,900	3.53	29.42	353
8,000,000	1.0%	30 Years	309,600	4.03	33.58	403

¹ Actual loan interest rates could vary.

² The annual tax rate increase is based on the City of Stanfield's 2015-16 assessed valuation of \$76,848,815. It was also assumed that 100 percent of taxes would be collected. Typically, a small percentage of taxes are not paid, which would require the estimated tax rate to be increased slightly from what is shown here.

SDWRLF = Safe Drinking Water Revolving Loan Fund