CITY OF DAYTON
Wastewater System Facilities Plan
Dayton, Oregon

### **CHAPTER 8**

# RECOMMENDED CAPITAL IMPROVEMENT PRIORITIES & IMPLEMENTATION PLAN

#### **Chapter Outline**

8.1	General Prioritization Issues	8-1
	Funding Issues	
	Recommended Implementation Plan	

## CHAPTER 8 RECOMMENDED CAPITAL IMPROVEMENT PRIORITIES AND IMPLEMENTATION PLAN

#### 8.1. GENERAL PRIORITIZATION ISSUES

As summarized in the previous sections, there is a need for sanitary sewerage system improvements within the study area to correct existing and projected deficiencies. Some of these deficiencies are more critical than others. Some are deficient under existing conditions, while others will become deficient as time passes and the existing systems continue to age. In order to assist the City in the planning and scheduling the construction of needed improvements, the improvements recommended in previous sections are grouped as Priority 1, Priority 2 and Priority 3 as outlined below.

In order that the recommended improvements resolve existing problems and meet the requirements for future growth within the study area, this prioritization is necessary, since the City obviously cannot afford all of the long term improvements required for the study area at this time. Some improvements are not critical at the present time, but will be needed later as development occurs and flows increase. Additional pipelines may be needed to serve future developments. In such cases, if current City policies are maintained, a portion or all of the cost for installing such pipelines will be borne by the developers as required by the particular development conditions.

- Priority 1 (Critical Near Term Improvements) These are those projects representing existing deficiencies (currently needed to meet existing and near future projected flows) or public health problem areas needing immediate attention. Priority 1 improvements should be accomplished as soon as practical considering financing, construction time and timing associated with other related projects. This Facilities Plan is the first step in the implementation of any large-scale treatment plant project and critical collection system deficiencies. The priority 1 improvements are further broken into Class A and Class B Priorities. It is recommended that all Priority 1A improvements be constructed during the same project.
- <u>Priority 2</u> (Vital Future Improvements) These are improvements that are anticipated to be needed in the future as the existing on-site systems age and frequency of breakdowns and failures increase. Although not critical at this time, they should be considered improvement projects that if not constructed at this time, will be upgraded to Priority 1 at some time during the planning period.
- Priority 3 (Long Term Improvements/Possible Future Need) These improvements are needed to improve system reliability or to convey future design flows if land develops to future City zone intensities. While important, they are not considered to be critical at the present time. If possible, these improvements should be incorporated into other improvement projects that may allow for concurrent construction. They may be constructed by developers in conjunction with the utility construction associated with development.

#### 8.2. Basis of Cost Estimates

In order to compare between different alternatives, the comparative costs of the principal alternatives must be estimated. The cost estimates are based on numerous assumptions necessary due to the relative lack of detail available at the facilities planning stage. The basic assumptions are summarized below.

Westech Engineering, Inc. 8-1

#### 8.2.1 Accuracy of Cost Estimates

It is important to note that the cost estimates are estimates made without detailed engineering data or designs. The accuracy or precision of cost estimates is a function of the level to which alternatives are developed (i.e., detail and design) and the techniques used in preparing the actual estimate. Estimates are typically divided into three basic categories as follows:

- Planning Level Estimates. These are order-of-magnitude estimates made without detailed engineering data. This type of estimate is normally accurate within +35% to -25% (i.e., final cost may be as much as 35% more or 25% less than the estimated amount). A relatively large contingency is typically included to reduce the risk of underestimating. This is particularly important since many times the project financing must be secured before the detailed design can proceed.
- <u>Budget Estimates</u>. This type of estimate is prepared using process flow sheets, layouts, and equipment details during preliminary design. This type of estimate is typically accurate to within ±25%.
- Engineer's Estimate. This estimate is prepared based on well-defined engineering data, typically when the construction plans and specifications are completed, and is sometimes called a definitive estimate. Since this type of estimate is based on comprehensive plans and elevations, piping and instrument diagrams, electrical diagrams, equipment data sheets, structural drawings, geotechnical data, and a complete set of specifications, The engineer's estimate is expected to be accurate within +15 percent to -5 percent (i.e., 15% more to 5% less than the estimate).

Since the alternatives (during the facilities planning process) are not developed in sufficient detail for a more precise estimate, the estimates presented in this document are order-of-magnitude estimates. Even though the final project cost may vary significantly from these estimates, the estimates are necessary to evaluate and compare the alternatives, and will be reasonably accurate relative to each other.

#### 8.2.2 Adjustment of Cost Estimates over Time

As the costs of material, labor and equipment rise over time, comparable changes will occur in the costs presented in this study. However, since the relative costs of the alternatives compared to each other should remain reasonably constant, the recommendations based on the cost estimates should remain valid.

A commonly used indicator of these changes in construction costs is the Engineering News-Record (ENR) construction cost index. The index is computed from the prices for structural steel, Portland cement, lumber, and common labor, and is based on a value of 100 in the year 1913. The construction costs developed in this analysis are based on current ENR 20 cities index (for index number, see **Section 8**). The costs presented herein can be related to those at any time in the past or future by applying the ratio of the then-prevailing cost index to index number used at present.

#### 8.2.3 Engineering & Administrative Costs & Contingencies

The cost of engineering services for major projects typically covers special investigations, pre-design reports, topographic surveying, geotechnical investigations, contract drawings and specifications, construction administration, inspection, project start-up, the preparation of O&M manual narratives, and performance certifications. Depending on the size and type of project, engineering costs may

range from 16 to 25 percent of the contract cost when all of the above services are provided. The lower percentage applies to large projects without complex mechanical systems. The higher percentage applies to smaller, more complex projects, projects that involve remodeling of existing plants, or where full time inspection is required by the funding agencies or desired by the Owner.

The City will have administrative costs associated with any construction project. These include internal planning and budgeting/payments, administration of engineering and construction contracts, legal services, and coordination with regulatory and funding agencies. For a typical project of this size, the City's administrative, legal and permitting costs are expected to be about 10 percent of the contract cost. The total cost for engineering and administration is assumed to be 30 percent.

#### 8.2.4 Construction Costs Estimates

Preliminary construction costs for collection system improvements recommended in this report are based on a number of assumptions as follows. The cost estimates reflect projects bid in late winter or early spring for summer construction. These estimates are based on construction costs for similar projects and manufacturer's information. The costs do not reflect a detailed investigation of existing utilities and soils. It is important to note that the cost estimates are planning level estimates, not engineering estimates, and are intended to be within the range of plus 35% to minus 25% of the actual project cost. The elements which comprise these budget estimates are listed as follows.

- 6 to 10 inch Pipeline Construction Cost (materials, installation & surface restoration, etc.) \$145 to per foot.
- 12 to 16 inch Pipeline Construction Cost (materials, installation & surface restoration, etc.) \$160.00 per foot.
- 18 to 24 inch Pipeline Construction Cost (materials, installation & surface restoration, etc.) \$180.00 per foot.
- Manholes \$3,700 each
- Service Laterals \$2,200 each
- Manhole Rehabilitation \$1,500 each
- Construction Contingencies 10% of estimated construction cost
- Engineering Costs (surveying, engineering design, and construction administration) 20% of estimated construction cost
- Legal, Permits & Administrative Costs (permitting, administration, legal, easement acquisition and financing) 5% of estimated construction cost

Example: 300 lineal feet of new 12-inch pipe with 2 manholes & 3 laterals

Est. Construction Cost =	300  feet x  \$160.00 =	\$48,000
	2  manholes  x \$3700 =	\$7,400
	3 laterals x $$2200 =$	\$6,600
Subtotal Construction Cost =		\$62,000
Constr. Contingencies =	\$62,000 x 10% =	\$6,200
Engineering =	\$62,000 x 20% =	\$12,400
Legal, Permits & Admin =	\$62,000 x 5% =	\$3,100
Total Estimated Project Cost =	\$83,700	

The budget estimates for the pump stations and forcemains are based on construction costs for similar projects and manufacturer's information, and the assumption that the pump stations will be constructed in accordance with the pump station design criteria as previously outlined in Table 3-2.

For the pump stations and forcemains, construction contingencies of 10% of the estimated construction cost were assumed, as well as engineering costs (surveying, engineering design, and construction administration) of 20% of estimated construction cost, and legal, permits & administrative costs (permitting, administration, legal, land & easement acquisition and financing) of 5% of estimated construction cost.

The planning level estimates for the new wastewater treatment system are based on construction costs for similar projects and manufacturer's information, and the assumption that the treatment plant will be constructed in the recommended location. For the WWTP improvements, construction contingencies of 10% of the estimated construction cost were assumed, as well as engineering costs (surveying, engineering design, and construction administration) of 20% of estimated construction cost, and legal, permits & administrative costs (permitting, administration, legal, easement acquisition and financing) of 5% of estimated construction cost. These construction costs are planning level estimates, but they should help the City in the process of planning and allocating resources in the most cost-effective manner. All costs are estimates of probable costs and do not reflect changes that could include increasing labor costs, material, and phased construction dates. Unit costs used for installation of sanitary sewers include excavation and export of material, bedding and backfill, cutting of asphalt, repaving of streets, pipe placement, bypass pumping and manholes. Once the Facilities Plan is adopted by the City, the projects listed can be selected for completion through the City's budgeting process. The steps for completion are:

- Project identification and planning level cost estimate (included herein)
- Project selection and secure project financing
- Retain consulting engineer for project
- Prepare pre-design report for review by regulatory agencies and to refine cost estimates
- Preparation of plans, specifications and final engineering cost estimates
- Bidding and contract award
- Construction

#### 8.3. RECOMMENDED CAPITAL IMPROVEMENT PROGRAM

To aid in the development of a Sanitary Sewer Capital Improvement Program (CIP), each of the projects was examined and assigned to one of the priority classes describe above according to the following criteria.

- <u>Public Health Concerns</u>. The driving force behind this Facilities Plan and the proposed improvements is the need to correct existing health hazards within the study area.
- <u>Anticipated Time until Projected Flow Increases</u>. The anticipated timeframe for the development of land within the basins and tributary to the proposed improvements was considered.
- <u>Structural Damage/End of Useful Life</u>. Projects to replace damaged components or components that have reached the end of their useful life and no longer function as designed were assigned a higher priority.
- <u>Capital Costs</u>. Capital costs of the projects were considered, including the costs of
  implementing a project, such as surveying, design, permitting, construction, legal fees and
  administration. Costs for acquisition of land and/or easements were included based on

assumed property values. Projects that will need to be constructed by developers in conjunction with future developments were given a lower priority than projects that may be largely the responsibility of the City.

The recommended improvements identified in the previous sections are listed in Table 8-1 with the total project costs and priority classification. The reader is referred to **Sections 6** and **Section 7** for more detailed descriptions of each of the projects. A breakdown of the construction costs, contingency, design and administration/financing costs are contained in **Appendix G**.

Table 8-1 | Recommended Capital Improvement Priorities

Project	Priority	Total Estimated Project Cost <sup>(1)</sup>
Collection System Improvements		
Main Pump Station (Ferry & Water)	1A	\$1,728,000
Main Pump Station Force Main (to WWTP) & Bore Under the Yamhill River	1A	\$1,835,000
Reroute RV Park Forcemain	1A	\$137,000
Ferry Street (9th Street P.S. to MH 34)	1B	\$38,000
9th Street Pump Station	1B	\$473,000
9th Street P.S. Force Main (P.S. to MH 11)	1B	\$307,000
Main Street ( MH 19 to Overflow)	1B	\$73,000
Main Street (MH 19 to MH 20	1B	\$89,000
Ferry Street (Main Pump Station to MH 3)	1B	\$124,000
1st Street (MH 3 to MH 8)	1B	\$448,000
5th Street (MH 8 to MH 11)	1B	\$227,000
HWY 221 Pump Station	1B	\$1,042,000
HWY 221 P.S. Force Main (connect to existing)	1B	\$23,000
1st Street (MH 3 to MH 71)	2	\$100,000
1st Street (MH 71 to MH 76)	2	\$201,000
Ferry Street (Main Pumps Station to MH 19)	2	\$100,000
1st Street (MH 20 to MH 54)	2	\$117,000
2nd Street (MH 54 to MH 58)	2	\$350,000
HWY 221 P.S. (Old PS Wet Well to MH 176)	2	\$230,000
1st Street (MH 20 to MH 24)	2	\$396,000
3rd Street (MH 24 to MH 28)	2	\$413,000
Palmer Creek P.S. Uprades When School Connects	3	\$135,000
New Foster Pump Station	3	\$1,350,000
New Foster Pump Station Force Main	3	\$744,000
·		\$10,680,000
Wastewater Treatment Plant Improvements		
Phase I WWTP Improvements	1A	\$8,473,000
Existing Lagoons Biosolids Removal	1B	\$540,000
Phase II WWTP Improvements	2	\$1,000,000
·		\$10,013,000

(1) Costs are in 2011 dollars and assume dry weather construction, publicly bid project, ENR 20 cities index = 9,103. See Section 3.6 for basis of project cost estimates (i.e., 10% construction contingency, 20% engineering, 5% legal, permits, easement, and administration)

At a minimum, all of the Priority 1, and Priority 2 improvements should be included in the CIP. The Priority 3 improvements are largely growth driven. In general, it is envisioned that the Priority 3 improvements will be constructed as part of future development and that the developer will pay for the improvements. Should the City desire to promote development in certain areas, selected Priority 3 improvements may also be included in the CIP. It is recommended that the City implement the Priority 1A improvements under a single funding package. Work on the Priority 1A improvements should begin immediately after agency approval and City adoption of this Facilities Plan. The Priority 1B and Priority 2 projects should be implemented after the Priority 1A improvements as

finances become available and the need arises. The total preliminary project cost estimates for each priority classification are listed below. The figures listed below are rounded to the nearest \$10,000 increment.

Priority 1A	
Collection System	\$3,700,000
WWTP Improvements	
Priority 1B	
Collection System	\$2,844,000
WWTP Improvements	\$540,000
Priority 2	
Collection System	\$1,907,000
WWTP Improvements	
Priority 3	
Collection System	\$2,229,000
Priority 1A Total	\$12,173,000
Priority 1B Total	
Priority 2 Total	\$2,907,000
Priority 3 Total	\$2,229,000
Grand Total	\$20,693,000

Note: Costs are 2011 dollars and assume dry weather construction, publicly bid project, ENR 20 Cities Index = 9.103.

#### **FUNDING ISSUES** 8.4.

As a general rule, small communities are not able to finance major sewerage system improvements without some form of government funding such as low interest loans or grants. It is anticipated that the funding for the recommended capital improvement plan outlined herein will be from multiple sources, including systems development charges (SDC's), monthly user fees, as well as state and federal grant and loan programs. The following section outlines the major local and State/Federal funding programs that may be available for these projects.

#### Local Funding Sources 8.4.1

To a large degree, the type and amount of local funding used for the sewerage system improvements will depend on the amount of grant funding obtained and the requirements of any loan funding. Local revenue sources for capital improvements include ad valorem taxes (property taxes), various types of bonds, sewer user fees, connection fees, and system development charges (SDC). Local revenue sources for operating costs include ad valorem taxes and sewer user fees. The following sections discuss the local funding sources and financing mechanisms that are most commonly used for the type of capital improvements presented in this study.

#### 8.4.1.1 Existing Debt Service

The City currently has no outstanding debt associated with the sanitary sewer utility.

#### 8.4.1.2 User Fees

Although user fees are not sufficient to finance major capital construction projects, they can be used to repay long term financing. User fees are typically the sole source of revenue to finance sewer system operation and maintenance. User fees are monthly charges to all residences, businesses, and other users that are connected to the sewer collection system. These fees are established by the City Council and may be modified as needed to account for changes in O&M costs, need for new improvements, etc. The monthly charges are typically based on a user classification (i.e., single family dwelling, multiple family dwelling, school, commercial, etc.), as well as the amount of wastewater discharged to the system. The most common method of estimating the wastewater discharge rate is to base it on water usage. This is how the City currently establishes rates for each user. The existing SDC and user fees are discussed in **Section 4**. The existing fee structure alone is not sufficient to fund the recommended improvements. It is recommended that upon adoption of this Facilities Plan, the City update the SDC and user fees to values that will support the projected construction costs for the Priority 1A, 1B, and priority 2 improvements.

#### 8.4.1.3 System Development Charge (SDC) Revenues

A system development charge (SDC) is a fee collected by the City as each piece of property is developed. SDCs are used to finance necessary capital improvements and municipal services required by the development. SDCs can be used to recover the capital costs of infrastructure required as a result of the development. As established in ORS 223, an SDC can have two principal elements, the reimbursement fee and the improvement fee. Fees are collected at issuance of building permits. It is important to note that operation, maintenance, and replacement costs <u>cannot</u> be financed or repaid by SDC revenues.

The reimbursement portion of the SDC is the fee for buying into existing or under construction capital facilities. The reimbursement fee represents a charge for utilizing excess capacity in an existing facility that was paid for by someone else. The revenue from this fee is typically used to pay back existing loans for improvements.

The improvement portion of the SDC is the fee designed to cover the costs of capital improvements that must be constructed to provide an increase in capacity.

Based on the information contained in this Facilities Plan, the existing SDC fees are not in line with the cost projections included herein. Therefore, it is strongly recommended that the City update the SDC fee schedule based on the projected capital improvement costs for the recommended sewerage system improvements.

#### 8.4.1.4 Connection Fees

Many cities charge connection fees to cover the cost of connecting new development to wastewater systems. There are two types of connection fees typically assessed. The first is for brand new connections, and is designed to cover the cost of City inspections at the time of physical connection to the sewer system.

The second type of fee is typically designed to defray the administrative cost to the City of setting up a new account, and is charged on both brand new services and when a sewer service is transferred to a new owner.

#### 8.4.1.5 Capital Construction (Sinking) Fund

Sinking funds are often established as a budget line item to set aside money for a particular construction purpose. A set amount from each annual budget is deposited in a sinking fund until sufficient revenues are available to complete the project. Such funds can also be developed from user fee revenues or from SDCs. The City Council should consider setting aside reserves immediately for the expansion and upgrades recommended herein as well as improvements that will be required at the end of the 20 year design life of the new facilities. This will allow the City to make future improvements without having to obtain outside financing.

#### 8.4.1.6 General Obligation Bonds

One traditional way to fund municipal sewer projects is through the sale of municipal general obligation (GO) bonds. This is the most often used form of local financing for large scale utility improvements benefiting a major portion of the City. GO bonds utilize the City's basic taxing authority and are retired with property taxes based on an equitable distribution of the bonded obligation across the City's assessed valuation. General obligation bonds are normally associated with the financing of facilities that benefit an entire community and must be approved by a majority vote of the City's voters.

General obligation bonds are backed by the City's full faith and credit, as the City must pledge to assess property taxes sufficient to pay the annual debt service. This portion of the property tax is outside the State constitutional limits that limit property taxes to a fixed percentage of the assessed value. The City may use other sources of revenue including water user fee revenues to repay the bonds. If it uses other funding sources to repay the bonds, the amount collected as taxes is reduced commensurately.

The general procedure followed when financing water system improvements with GO bonds is typically as follows.

- Determination of the capital costs required for the improvement.
- An election by the voters to authorize the sale of bonds.
- The bonds are offered for sale.
- The revenue from the bond sale is used to pay the capital costs associated with the project(s).

GO bonds can be "revenue supported," wherein a portion of the user fee is pledged toward repayment of the bond debt. The advantage of this method is that the need to collect additional property taxes to retire the bonds is reduced or eliminated. Such revenue supported GO bonds have most of the advantages of revenue bonds, plus lower interest rate and ready marketability.

The primary disadvantage of GO bond debt is that it is often added to the debt ratios of the City, thereby restricting the flexibility of the municipality to issue debt for other purposes.

#### 8.4.1.7 Revenue Bonds

These are similar to GO bonds, except they rely on revenue from the sales of the utility (i.e. user fees) to retire the bonded indebtedness. The primary security for the bonds is the City's pledge to charge user fees sufficient to pay all operating costs and debt service. Because the reliability of the source of revenue is relatively more speculative than for GO bonds, revenue bonds typically have slightly higher interest rates.

The general shift away from ad valorem property taxes makes revenue bonds a frequently used option for payment of long term debt. Many communities prefer revenue bonding, because it insures that no additional taxes are levied. In addition, repayment of the debt obligation is limited to system users since repayment is based on user fees.

One advantage with revenue bonds is that they do not count against a City's direct debt. This feature can be a crucial advantage for a municipality near its debt limit. Rating agencies evaluate closely the amount of direct debt when assigning credit ratings. There are normally no legal limitations on the amount of revenue bonds that can be issued. However, excessive issue amounts are generally unattractive to bond buyers because they represent high investment risks.

Under ORS 288.805-288.945, Cities may elect to issue revenue bonds for revenue producing facilities without a vote of the electorate. Certain notice and posting requirements must be met and a sixty (60) day waiting period is mandatory.

The bond lender typically requires the City to provide two additional securities for revenue bonds that are not required for GO bonds. First, the City must set user fees such that the <u>net</u> projected cash flow from user fees plus interest will be at least 125% of the annual debt service (a 1.25 debt coverage ratio). Secondly, the City must establish a bond reserve fund equal to maximum annual debt service or 10% of the bond amount, whichever is less.

#### 8.4.1.8 Improvement Bonds

Improvement (Bancroft) bonds are an intermediate form of financing that are less than full-fledged GO or revenue bonds. This form of bonding is typically used for so-called Local Improvement Districts, or LIDs.

Improvement bonds are payable from the proceeds of special benefit assessments, not from general tax revenues or user fees. Such bonds are issued only where certain properties are recipients of special benefits not occurring to other properties. For a specific improvement, all property within the designated improvement district is assessed on the same basis, regardless of whether the property is developed or undeveloped. The assessment is designed to divide the cost of the improvements among the benefited property owners. The manner in which it is divided is in proportion to the direct or indirect benefits to each property. The assessment becomes a direct lien against the property, and owners have the option of either paying the assessment in cash or applying for improvement bonds. If the improvement bond option is taken, the City sells Bancroft Improvement Bonds to finance the construction, and the assessment is paid over 20 years in 40 semiannual installments plus interest.

The assessments against the properties are usually not levied until the actual cost of the project is determined. Since the determination of actual costs cannot normally be determined until the project is completed, funds are not available from assessments for the purpose of paying costs at the time of construction. Therefore, some method of interim financing must be arranged.

The primary disadvantage to this source of revenue is that the development of an assessment district is very cumbersome and expensive when facilities for an entire City are contemplated. Therefore, this method of financing should only be considered for discrete improvements to the collection system where the benefits are localized and easily quantified.

#### 8.4.1.9 Certificates of Participation

Certificates of Participation are a form of bond financing that is distinct from revenue bonds. While it is more complex and typically has a higher interest rate than revenue bonds, it is a process controlled

by the City Council, and it does not have to be referred to the voters, which can result in a significant time savings. Current rates for Certifications of Participation range from 4.5 to 5.5%.

#### 8.4.1.10 Ad Valorem Taxes

Ad valorem property taxes were often used in the past as a revenue source for public utility improvements. Historically, ad valorem taxes were the traditional means of obtaining revenue to support all local governmental functions. Ad valorem taxation provided a means of financing that reached all property owners that benefit or can potentially benefit from the sanitary sewer system, whether the property was developed or not. The construction costs for the project were shared proportionally among all property owners based on the assessed value of each property. Ad valorem taxation, however, is less likely to result in individual users paying their proportionate share of the costs as compared to their benefits.

#### 8.4.2 State & Federal Grant & Loan Programs

Several state and federal grant and loan programs are available to provide financial assistance for municipal wastewater system improvements. Based on data from the 2011 Community Development Block Grant document titled, "Method of Distribution" located in Chapter 2, 53.9% of families in Dayton are classified as low or moderate income. Communities with high portions of low and moderate income families qualify for a number of grant and low interest loan programs.

The primary sources of funding available for wastewater system financing are Rural Utilities Service (RUS), Special Public Works Fund (SPWF), the Water/Wastewater (W/W) Financing Program, the Community Development Block Grant (CDBG) program, and the Clean Water State Revolving Fund (CWSRF).

#### 8.4.2.1 Rural Utility Services

Rural Utility Service (RUS) provides federal loans and grants to rural municipalities, counties, special districts, Indian tribes, and not-for-profit organizations to construct, enlarge, or modify water treatment and distribution systems and wastewater collection and treatment systems. Preference is given to projects in low-income communities with populations below 10,000.

Borrowers of RUS loans must be able to demonstrate the following:

- Monthly user rates must be at or above the "state wide average".
- They have the legal authority to borrow and repay loans, to pledge security for loans, and to operate and maintain the facilities and services.
- They are financially sound and able to manage the facility effectively.
- They have a financially sound facility based on taxes, assessments, revenues, fees, or other satisfactory sources of income to pay for all facility costs including O&M and to retire indebtedness and maintain a reserve.

The maximum loan term is 40 years but the finance term may not exceed statutory limitations on the agency borrowing the money or the expected useful life of the improvements. The reserve can typically be funded at 10 percent per year over a ten-year period. Interest rates for RUS loans vary based on median household income (MHI), but tend to be lower than those obtained in the open market.

#### 8.4.2.2 Infrastructure Finance Authority (IFA) aka Oregon Business Development Department (OBDD)

The IFA manages a number of grant and low interest loan programs as describe in the following sections.

#### • Special Public Works Fund.

The Special Public Works Fund program was established by the Legislature in 1985 to provide primarily 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.

For design and construction projects loans are primarily available, however, grants are available for 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. Loans range in size from less than \$100,000 to \$10 million. The department is able to offer very attractive interest rates that reflect tax-exempt, market rates for very good quality creditors. Loan terms can be up to 25 years or the useful life of the project whichever is less. Grants are limited to projects associated with job creation/retention. 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.

#### • Bond Bank Program.

The Bond Bank program, administered by IFA, attempts to lower the cost of issuing debt by pooling small revenue bond issues from many communities into one large revenue bond issue. It uses lottery proceeds to write down financing costs, and to improve the debt/equity ratio on projects. The interest rate for repayment of funds is typically around 6 percent, with up to a 25 year term.

#### • 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 or the Clean Water Act. 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 Safe Drinking Water Act or the Clean Water Act.

While primarily a loan program, grants are available for municipalities who meet the eligibility criteria. The loan/grant amounts are determined by a 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. Loan amounts are 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 also may be required. "Credit worthy" borrowers may be funded through 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 median household income is equal to or greater than 100 percent of the state average median household income for the same year.

#### • Community Development Block Grant.

The primary objective of the program is the 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 income.

This is a grant program, that only non-metropolitan (non-entitlement) cities and counties in rural Oregon can apply for. The state receives an annual allocation from HUD for the CDBG program. Grant funding is subject to the 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.

#### i. Preliminary Engineering & Planning Project

Generally, these grant fund preparation or update of Water System Master Plans and Wastewater Facility Plans, as required by the Oregon Department of Environmental Quality or Oregon Health Division. In addition, funds for grant administration and preparation of a final design funding application can be included in the project budget. All plans produced with grant funds must be approved by the appropriate regulatory agency.

#### ii. Final Design and Engineering Projects

Final design and engineering, bid specifications, environmental review, financial feasibility, rate analysis, grant administration, and preparing a construction funding application are eligible project activities. The final design, plans and specifications must be approved by the appropriate regulatory agency before the grant will be awarded.

#### iii. Construction Projects

These grants fund construction and related activities, grant administration and land/permanent easement acquisition.

IFA has established an evaluation system that gives priority to projects that provide system-wide benefits. The maximum grant amount per water or wastewater project is \$2,000,000 (including all planning, final engineering, and construction). In order to qualify for grant funding under this program, the water user rates must be at or above 1.25% of the current median household income.

#### • For IFA Programs – Contact Regional Coordinator

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

#### 8.4.2.1 DEQ Clean Water State Revolving Fund

The Clean Water State Revolving Fund loan program provides low-cost loans for the planning, design or construction of various projects that prevent or mitigate water pollution. The Oregon Department of Environmental Quality administers the program. Eligible agencies include Indian tribal governments, cities, counties, sanitary districts, soil and water conservation districts, irrigation districts, various special districts and certain intergovernmental entities.

DEQ partners with Oregon communities to implement projects that attain and maintain water quality standards, and are necessary to protect recreation, fish habitat, boating, irrigation, drinking water and other beneficial uses.

Six different types of loans are available within the program including loans for planning, design, construction, emergencies, urgent repairs and local community projects. A portion of the fund is reserved for small communities, planning or green projects.

Interest rates for the loan program change quarterly based on a percentage of the national municipal bond rate. Those percentages vary from 25 percent to 65 percent of the bond rate. For example, with a quarterly bond rate of 4.1 percent, CWSRF interest rates range from 1.0 percent to 2.7 percent depending on the length of the loan repayment period. The low-interest rates and terms inherent with these loans make this program an attractive alternative to the municipal bond market. For example, a \$4 million, 20-year loan with a CWSRF interest rate one percentage point lower than a bond would reduce the interest cost by about \$500,000 over the life of the loan.

Current interest rates are found on DEQ's website. Loans include an annual loan fee of 0.5 percent of the outstanding balance. Planning loans do not include this fee.

The DEQ accepts new applications year-round. Applicants must provide information on the project's water quality benefits, environmental impact and estimated cost. Applications are available by contacting DEQ's regional project officers (page 2). Applications are also available on the DEQ website.

#### 8.4.3 Funding Recommendations

As available grant funding on public works projects has decreased in the last several years, it will be incumbent upon the City to aggressively pursue grant funding. The first step in this process is to schedule a "one stop meeting" with OBDD-IFA and the preparation of applicable grant applications as soon as possible. The City may qualify for a number of grant programs since 53.9% of residents in the City are in the low and moderate income brackets. The City must also determine if any users outside the city limits are in the low and moderate income brackets.

#### 8.5. RECOMMENDED IMPLEMENTATION PLAN

It is recommended that the City begin the preliminary groundwork for the Priority 1 improvements as soon as possible after the final approval of the Facilities Plan. A key early step involves putting together a funding package and adjusting SDC and user fees accordingly. The SDC and user fee structure should be sufficient to fund all of the Priority 1A, 1B, and Priority 2 improvements over the duration of the planning period. It is recommended that the City's initial efforts be focused on the Priority 1A improvements. After these improvements are completed, the Priority 1B and Priority 2 improvements can be implemented as finances become available. Clearly, the Priority 1A improvement project is substantial. Based on discussions with City Staff it will be the largest single project the City has ever undertaken.

A recommended implementation schedule for the Priority 1A improvements is shown on the following page for the City's consideration. Since the recommended improvements are substantial in nature, and since the tasks associated with these improvements are complex and interrelated, it is likely that the actual implementation schedule will vary from that as shown below. It should be noted that the City and its project team will need to complete many of the tasks concurrently in order to meet the schedule as outlined below.

Table 8-2 | Recommended Implementation Schedule (Priority 1)

Milestone     Date       Facilities Plan     6/1/2012       DEQ and Agency approval of final Facilities Plan     6/15/2012       City adopts Final Facilities Plan     6/15/2012       Funding Package     1/30/2015       Evaluate potential funding sources/schedule one-stop meeting     1/30/2015       Decision on final funding sources to pursue     3/30/2015       Submit funding applications     4/30/2015       Update user rates analysis and SDC fees     8/30/2015       Finalize funding package     12/30/2015       Land and Easement Acquisition     1       Identify land and easement needs     3/28/2016       Contact property owners and enter into negotiations     4/31/2016       Prepare legal documents and finalize purchases     7/1/2016       Design Engineering     3/30/2016       Select and retain engineering team     3/30/2016       Notice to proceed for preliminary engineering     4/30/2016       Submit Draft Predesign Report to DEQ & Funding Agency     3/30/2017       Submit Final Predesign Report to DEQ & Funding Agency     3/15/2017       DEQ and Agency Approval of Predesign Report     6/1/2017       Notice to proceed for final engineering     7/1/2017       DEQ and agency approval of plans & specifications     2/30/2017       DEQ and agency approval of plans & specifications     2/30/2018	able 8-2   Recommended implementation Schedule (Phonty 1)	
Submit final Facilities Plan and EA to DEQ and Agency for final review DEQ and Agency approval of final Facilities Plan 6/15/2012 City adopts Final Facilities Plan 6/15/2012 Funding Package Evaluate potential funding sources/schedule one-stop meeting 1/30/2015 Decision on final funding sources to pursue 3/30/2015 Submit funding applications 4/30/2015 Update user rates analysis and SDC fees Finalize funding package 12/30/2015 Land and Easement Acquisition Identify land and easement needs Contact property owners and enter into negotiations 4/31/2016 Prepare legal documents and finalize purchases 7/1/2016  Design Engineering Select and retain engineering team Notice to proceed for preliminary engineering Submit Draft Predesign Report to DEQ & Funding Agency Submit Draft Predesign Report to DEQ & Funding Agency Submit Final Predesign Report to DEQ & Funding Agency 3/30/2017 Submit Final Predesign Report to DEQ & Funding Agency 3/30/2017 Submit Final Predesign Report to DEQ & Funding Agency 3/30/2017 DEQ and Agency Approval of Predesign Report Notice to proceed for final engineering 7/1/2017 Complete final design 1/2/30/2017 DEQ and agency approval of plans & specifications 2/30/2018 Construction Advertise for Construction Bids 4/31/2018 Award Contracts 5/15/2018	Milestone	Date
DEQ and Agency approval of final Facilities Plan City adopts Final Facilities Plan Funding Package Evaluate potential funding sources/schedule one-stop meeting Decision on final funding sources to pursue Submit funding applications Update user rates analysis and SDC fees Finalize funding package Land and Easement Acquisition Identify land and easement needs Contact property owners and enter into negotiations Prepare legal documents and finalize purchases T/1/2016  Design Engineering Select and retain engineering team Notice to proceed for preliminary engineering Submit Draft Predesign Report to DEQ & Funding Agency Submit Final Predesign Report to DEQ & Funding Agency Submit Final Predesign Report to DEQ & Funding Agency Submit Final Predesign Report to PEQ & Funding Agency Submit Final Predesign Report to PEQ & Funding Agency Submit Final Predesign Report to DEQ & Funding Agency Submit Final Predes	Facilities Plan	
City adopts Final Facilities Plan6/15/2012Funding Package1/30/2015Evaluate potential funding sources/schedule one-stop meeting1/30/2015Decision on final funding sources to pursue3/30/2015Submit funding applications4/30/2015Update user rates analysis and SDC fees8/30/2015Finalize funding package12/30/2015Land and Easement Acquisition12/30/2015Identify land and easement needs3/28/2016Contact property owners and enter into negotiations4/31/2016Prepare legal documents and finalize purchases7/1/2016Design Engineering3/30/2016Select and retain engineering team3/30/2016Notice to proceed for preliminary engineering4/30/2016Submit Draft Predesign Report to DEQ & Funding Agency1/30/2017Submit Final Predesign Report to DEQ & Funding Agency3/30/2017Submit Final Predesign Report to DEQ & Funding Agency3/15/2017DEQ and Agency Approval of Predesign Report6/1/2017Notice to proceed for final engineering7/1/2017Complete final design12/30/2017DEQ and agency approval of plans & specifications2/30/2018Construction4/15/2018Advertise for Construction Bids3/15/2018Award Contracts5/15/2018	Submit final Facilities Plan and EA to DEQ and Agency for final review	6/1/2012
Funding Package Evaluate potential funding sources/schedule one-stop meeting Decision on final funding sources to pursue Submit funding applications Update user rates analysis and SDC fees Finalize funding package 12/30/2015 Land and Easement Acquisition Identify land and easement needs Contact property owners and enter into negotiations Prepare legal documents and finalize purchases 7/1/2016  Design Engineering Select and retain engineering team Notice to proceed for preliminary engineering Submit Draft Predesign Report to DEQ & Funding Agency Submit Draft Predesign Report to DEQ & Funding Agency Submit Final Predesign Report Report	DEQ and Agency approval of final Facilities Plan	6/15/2012
Evaluate potential funding sources/schedule one-stop meeting Decision on final funding sources to pursue 3/30/2015 Submit funding applications Update user rates analysis and SDC fees Finalize funding package 12/30/2015 Land and Easement Acquisition Identify land and easement needs Contact property owners and enter into negotiations Prepare legal documents and finalize purchases 7/1/2016  Design Engineering Select and retain engineering team Notice to proceed for preliminary engineering Submit Draft Predesign Report to DEQ & Funding Agency Submit Draft Predesign Report to DEQ & Funding Agency Submit Final Predesign Report to DEQ & Funding Agency Submit Final Predesign Report to DEQ & Funding Agency Submit Final Predesign Report to DEQ & Funding Agency Submit Final Predesign Report to DEQ & Funding Agency Submit Final Predesign Report to DEQ & Funding Agency Submit Final Predesign Report to DEQ & Funding Agency 3/30/2017 Submit Final Predesign Report to DEQ & Funding Agency 3/15/2017 DEQ and Agency Approval of Predesign Report Notice to proceed for final engineering 7/11/2017 Complete final design DEQ and agency approval of plans & specifications 2/30/2018  Construction Advertise for Construction Bids Receive Construction Bids Award Contracts 5/15/2018	City adopts Final Facilities Plan	6/15/2012
Decision on final funding sources to pursue  Submit funding applications  Update user rates analysis and SDC fees Finalize funding package  12/30/2015  Land and Easement Acquisition Identify land and easement needs Contact property owners and enter into negotiations Prepare legal documents and finalize purchases  7/1/2016  Design Engineering Select and retain engineering team Notice to proceed for preliminary engineering Submit Draft Predesign Report to DEQ & Funding Agency Receive Predesign Report comments from DEQ & Funding Agency Submit Final Predesign Report to DEQ & Funding Ag		
Submit funding applications Update user rates analysis and SDC fees Finalize funding package 12/30/2015  Land and Easement Acquisition Identify land and easement needs Contact property owners and enter into negotiations Prepare legal documents and finalize purchases 7/1/2016  Design Engineering Select and retain engineering team Notice to proceed for preliminary engineering Submit Draft Predesign Report to DEQ & Funding Agency Submit Draft Predesign Report to DEQ & Funding Agency Submit Predesign Report to DEQ & Funding Agency Submit Predesign Report to DEQ & Funding Agency Submit Final Predesign Report Report to DEQ & Funding Agency Submit Final Predesign Report Report To DEQ & Funding Agency Submit Final Predesign Report Report Report To DEQ & Funding Agency Submit Final Predesign Report Report Report To DEQ & Funding Agency Submit Final Predesign Report Report To DEQ & Funding Agency Submit Final Predesign Report Report To DEQ & Funding Agency Submi	Evaluate potential funding sources/schedule one-stop meeting	1/30/2015
Update user rates analysis and SDC fees Finalize funding package 12/30/2015  Land and Easement Acquisition Identify land and easement needs Contact property owners and enter into negotiations Prepare legal documents and finalize purchases 7/1/2016  Design Engineering Select and retain engineering team Notice to proceed for preliminary engineering Submit Draft Predesign Report to DEQ & Funding Agency Submit Draft Predesign Report comments from DEQ & Funding Agency Submit Predesign Report to DEQ & Funding Agency Submit Predesign Report to DEQ & Funding Agency Submit Final Predesign Report to DEQ & Funding Agency Submit Final Predesign Report to DEQ & Funding Agency Submit Final design Report of fredesign Report Source to proceed for final engineering Thytoce to proceed for final engineering Complete final design DEQ and agency approval of plans & specifications  Construction Advertise for Construction Bids Receive Construction Bids Award Contracts 5/15/2018	Decision on final funding sources to pursue	3/30/2015
Finalize funding package 12/30/2015  Land and Easement Acquisition Identify land and easement needs 3/28/2016 Contact property owners and enter into negotiations 4/31/2016 Prepare legal documents and finalize purchases 7/1/2016  Design Engineering Select and retain engineering team 3/30/2016 Notice to proceed for preliminary engineering 4/30/2016 Submit Draft Predesign Report to DEQ & Funding Agency 1/30/2017 Receive Predesign Report comments from DEQ & Funding Agency 3/30/2017 Submit Final Predesign Report to DEQ & Funding Agency 3/15/2017 DEQ and Agency Approval of Predesign Report 6/1/2017 Notice to proceed for final engineering 7/1/2017 Complete final design 12/30/2017 DEQ and agency approval of plans & specifications 2/30/2018  Construction Advertise for Construction Bids 3/15/2018 Receive Construction Bids 4/15/2018 Award Contracts 5/15/2018	Submit funding applications	4/30/2015
Land and Easement Acquisition3/28/2016Identify land and easement needs3/28/2016Contact property owners and enter into negotiations4/31/2016Prepare legal documents and finalize purchases7/1/2016Design Engineering3/30/2016Select and retain engineering team3/30/2016Notice to proceed for preliminary engineering4/30/2016Submit Draft Predesign Report to DEQ & Funding Agency1/30/2017Receive Predesign Report comments from DEQ & Funding Agency3/30/2017Submit Final Predesign Report to DEQ & Funding Agency3/15/2017DEQ and Agency Approval of Predesign Report6/1/2017Notice to proceed for final engineering7/1/2017Complete final design12/30/2017DEQ and agency approval of plans & specifications2/30/2018ConstructionAdvertise for Construction Bids3/15/2018Receive Construction Bids4/15/2018Award Contracts5/15/2018	Update user rates analysis and SDC fees	
Identify land and easement needs3/28/2016Contact property owners and enter into negotiations4/31/2016Prepare legal documents and finalize purchases7/1/2016Design EngineeringSelect and retain engineering team3/30/2016Notice to proceed for preliminary engineering4/30/2016Submit Draft Predesign Report to DEQ & Funding Agency1/30/2017Receive Predesign Report comments from DEQ & Funding Agency3/30/2017Submit Final Predesign Report to DEQ & Funding Agency3/15/2017DEQ and Agency Approval of Predesign Report6/1/2017Notice to proceed for final engineering7/1/2017Complete final design12/30/2017DEQ and agency approval of plans & specifications2/30/2018ConstructionAdvertise for Construction Bids3/15/2018Receive Construction Bids4/15/2018Award Contracts5/15/2018	Finalize funding package	12/30/2015
Contact property owners and enter into negotiations Prepare legal documents and finalize purchases  T/1/2016  Design Engineering Select and retain engineering team Notice to proceed for preliminary engineering Submit Draft Predesign Report to DEQ & Funding Agency Receive Predesign Report comments from DEQ & Funding Agency Submit Final Predesign Report to DEQ & Funding Agency Submit Final Predesign Report to DEQ & Funding Agency Submit Final Predesign Report to DEQ & Funding Agency DEQ and Agency Approval of Predesign Report Notice to proceed for final engineering Complete final design DEQ and agency approval of plans & specifications  Construction Advertise for Construction Bids Receive Construction Bids Receive Construction Bids Award Contracts  4/31/2016  4/30/2016  4/30/2017  5/15/2018	Land and Easement Acquisition	
Prepare legal documents and finalize purchases  Design Engineering Select and retain engineering team Notice to proceed for preliminary engineering Submit Draft Predesign Report to DEQ & Funding Agency Receive Predesign Report comments from DEQ & Funding Agency Submit Final Predesign Report to DEQ & Funding Agency Submit Final Predesign Report to DEQ & Funding Agency 3/30/2017 Submit Final Predesign Report to DEQ & Funding Agency 3/15/2017 DEQ and Agency Approval of Predesign Report Notice to proceed for final engineering Complete final design 7/1/2017 Complete final design DEQ and agency approval of plans & specifications  Construction Advertise for Construction Bids Receive Construction Bids Receive Construction Bids Award Contracts 5/15/2018	Identify land and easement needs	3/28/2016
Design EngineeringSelect and retain engineering team3/30/2016Notice to proceed for preliminary engineering4/30/2016Submit Draft Predesign Report to DEQ & Funding Agency1/30/2017Receive Predesign Report comments from DEQ & Funding Agency3/30/2017Submit Final Predesign Report to DEQ & Funding Agency3/15/2017DEQ and Agency Approval of Predesign Report6/1/2017Notice to proceed for final engineering7/1/2017Complete final design12/30/2017DEQ and agency approval of plans & specifications2/30/2018ConstructionAdvertise for Construction Bids3/15/2018Receive Construction Bids4/15/2018Award Contracts5/15/2018	Contact property owners and enter into negotiations	4/31/2016
Select and retain engineering team  Notice to proceed for preliminary engineering  Submit Draft Predesign Report to DEQ & Funding Agency  Receive Predesign Report comments from DEQ & Funding Agency  Submit Final Predesign Report to DEQ & Funding Agency  Submit Final Predesign Report to DEQ & Funding Agency  Submit Final Predesign Report to DEQ & Funding Agency  DEQ and Agency Approval of Predesign Report  Notice to proceed for final engineering  7/1/2017  Complete final design  DEQ and agency approval of plans & specifications  Construction  Advertise for Construction Bids  Receive Construction Bids  Award Contracts  3/30/2016  4/30/2017  3/30/2017  3/15/2018  Agency Approval of plans & specifications  3/15/2018  3/15/2018	Prepare legal documents and finalize purchases	7/1/2016
Notice to proceed for preliminary engineering Submit Draft Predesign Report to DEQ & Funding Agency Receive Predesign Report comments from DEQ & Funding Agency 3/30/2017 Submit Final Predesign Report to DEQ & Funding Agency 3/15/2017 DEQ and Agency Approval of Predesign Report Notice to proceed for final engineering 7/1/2017 Complete final design DEQ and agency approval of plans & specifications 2/30/2018  Construction Advertise for Construction Bids Receive Construction Bids Award Contracts 5/15/2018	Design Engineering	
Submit Draft Predesign Report to DEQ & Funding Agency Receive Predesign Report comments from DEQ & Funding Agency 3/30/2017 Submit Final Predesign Report to DEQ & Funding Agency 3/15/2017 DEQ and Agency Approval of Predesign Report Notice to proceed for final engineering 7/1/2017 Complete final design 12/30/2017 DEQ and agency approval of plans & specifications 2/30/2018  Construction Advertise for Construction Bids Receive Construction Bids Award Contracts 5/15/2018		3/30/2016
Receive Predesign Report comments from DEQ & Funding Agency Submit Final Predesign Report to DEQ & Funding Agency 3/15/2017 DEQ and Agency Approval of Predesign Report Notice to proceed for final engineering 7/11/2017 Complete final design 12/30/2017 DEQ and agency approval of plans & specifications 2/30/2018  Construction Advertise for Construction Bids Receive Construction Bids Award Contracts 5/15/2018		4/30/2016
Submit Final Predesign Report to DEQ & Funding Agency DEQ and Agency Approval of Predesign Report Notice to proceed for final engineering 7/1/2017 Complete final design 12/30/2017 DEQ and agency approval of plans & specifications 2/30/2018  Construction Advertise for Construction Bids Receive Construction Bids Award Contracts 5/15/2018	Submit Draft Predesign Report to DEQ & Funding Agency	1/30/2017
DEQ and Agency Approval of Predesign Report       6/1/2017         Notice to proceed for final engineering       7/1/2017         Complete final design       12/30/2017         DEQ and agency approval of plans & specifications       2/30/2018         Construction       3/15/2018         Receive Construction Bids       4/15/2018         Award Contracts       5/15/2018	Receive Predesign Report comments from DEQ & Funding Agency	3/30/2017
Notice to proceed for final engineering         7/1/2017           Complete final design         12/30/2017           DEQ and agency approval of plans & specifications         2/30/2018           Construction           Advertise for Construction Bids         3/15/2018           Receive Construction Bids         4/15/2018           Award Contracts         5/15/2018	Submit Final Predesign Report to DEQ & Funding Agency	3/15/2017
Complete final design 12/30/2017 DEQ and agency approval of plans & specifications 2/30/2018  Construction Advertise for Construction Bids 3/15/2018 Receive Construction Bids 4/15/2018 Award Contracts 5/15/2018		6/1/2017
DEQ and agency approval of plans & specifications  Construction  Advertise for Construction Bids Receive Construction Bids Award Contracts  2/30/2018  3/15/2018  4/15/2018		7/1/2017
ConstructionAdvertise for Construction Bids3/15/2018Receive Construction Bids4/15/2018Award Contracts5/15/2018	Complete final design	
Advertise for Construction Bids 3/15/2018 Receive Construction Bids 4/15/2018 Award Contracts 5/15/2018	DEQ and agency approval of plans & specifications	2/30/2018
Receive Construction Bids Award Contracts 4/15/2018 5/15/2018	Construction	
Award Contracts 5/15/2018	Advertise for Construction Bids	
	Receive Construction Bids	
Start Construction 6/1/2018	Award Contracts	
Complete Construction of Priority 1A improvements 11/1/2019		
Improvements fully Operational 12/31/2019	Improvements fully Operational	12/31/2019