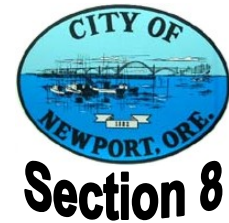


Capital Improvement Plan



8.1 Capital Improvement Plan Purpose

This section describes the capital improvement plan for the City of Newport's water system as developed within this master planning effort. The capital improvement plan will include a combination of projects for each sector of the water system including:

- Raw Water Supply Projects
- Water Treatment Projects
- Treated Water Storage Projects
- Distribution System Projects

The project list developed within this master plan constitutes the current City of Newport Water System Capital Improvement Plan or CIP. The CIP will be used to establish system development charges, guide planning for improvements to the system, and aid the City in prioritizing and implementing improvements over time.

As needs arise or as new deficiencies are identified, additional projects may be added to the CIP. As projects are completed, they will transition from planned CIP projects to completed projects. Completed projects may still affect SDC planning if reimbursement SDCs are applicable.

The City should adopt the CIP and move forward in a deliberate manner to undertake high priority projects immediately. Other projects should be undertaken as need and funding availability dictates.

8.2 CIP Summary

The overall City of Newport Water System CIP is summarized below in Table 8.2. The projects listed in Table 8.2 are presented according to project type rather than priority. Prioritization follows later in this Section. Detailed descriptions and discussion about each recommended project is provided in Section 7 of this Master Plan.

The projects in Table 8.2 are grouped together as treatment projects (T), storage projects (S), distribution projects (D), and pump station projects (P). Individual project costs are shown for each project. A total CIP budget of just over \$32-million dollars has been developed within this master plan.

Figure 8.1, located at the end of Section 8, illustrates the entire water system and shows the approximate location of each water system improvement project on the CIP.

Table 8.2 – Water System CIP Summary

Project	Description	Project Budget
T1	Big Creek Water Treatment Plant Improvements	\$12,125,340
T2	Siletz River Pump Station - Pump Replacement	\$642,060
T3	Upper Lake Siphon Intake	\$612,540
T4	Raw Water Transmission Pipe, Dam to Plant	\$1,239,840
S1	Agate Beach Lower Storage Tank - 1.0 MG GFS	\$2,009,575
S2	Agate Beach Upper Storage Tank - 1.0 MG GFS	\$1,740,470
S3	City Shops Tank Replacement - 1.0 MG GFS	\$1,657,090
S4	King Ridge Storage Tank - 1.0 MG GFS	\$2,533,740
D1	Highway 101 SE 40th to 50th Waterline, Hwy. Bore Crossing	\$528,260
D2	12" Redundant Bay Crossing, Idaho Point Option	\$2,333,560
D3	Highway 101 NE 36th to NE 40th Waterline	\$228,780
D4	Highway 101 NE 40th to Circle Way Waterline Replacement	\$509,220
D5	NE 40th and Golf Course Drive Waterline Replacement	\$389,670
D6	NE Crestview Pl. to 17th Ct. Waterline Loop	\$132,840
D7	NE Avery Street Loop Closure	\$112,770
D8	NW 19th (Nye St. to Hwy 101) and Nye St. (18th to 20th) Waterline	\$153,510
D9	Ocean View (12th to 14th) Waterline Replacement, Loop 13th to 12th	\$196,160
D10		
D11	SW Coho Street (27th to 29th) Waterline Replacement	\$106,270
D12	Idaho Point Waterline Replacement and Looping	\$574,315
D13	East Newport Waterline Extensions	\$2,096,510
D14	Water Meter Replacement - Conversion to Touch Read Meters	\$1,461,240
D15	NE 5th St., Benton to Eads	\$107,600
P1	Candletree Pump Station Rehabilitation	\$206,640
P2	Lakewood Pump Station Rehabilitation	\$187,450
Total CIP Budget Estimate		\$31,885,451

8.3 Prioritization

To assist the City in implementing their CIP, this section is provided to summarize the recommended prioritization for the CIP projects. The City should schedule and undertake projects based on the prioritization recommendations within this section.

8.3.1 Priority 1- High Priority Projects

Priority 1 projects should be undertaken immediately, as soon as the City can fund and implement the improvement projects. Priority 1 projects on the CIP focus on core projects related to water treatment upgrades, fire protection and storage upgrades and critical distribution improvements.

Priority 1 projects should be considered critical for the continued operation and health of the City’s water system and should be implemented within the next few years or as soon as funding is available to move forward. The majority of Priority 1 relates to replacement of the 50+ year old water treatment plant.

Table 8.3.1 summarizes the Priority 1 CIP projects for Newport.

Table 8.3.1 – Priority 1 CIP Projects

Project No.	Description	Project Cost
T1	Big Creek Water Treatment Plant Improvements	\$12,125,340
T3	Upper Lake Siphon Intake	\$612,540
T4	Raw Water Transmission Pipe, Dam to Plant	\$1,239,840
S1	Agate Beach Lower Storage Tank - 1.0 MG GFS	\$2,009,575
D1	Highway 101 SE 40th to 50th Waterline, Hwy. Bore Crossing	\$528,260
Total		\$16,515,555

As shown above, priority 1 includes over \$16.5-million in project costs.

8.3.2 Priority 2- Medium Priority Projects

Priority 2 projects should be undertaken as funding is available and as needs move the project(s) to the forefront. Development pressures, newly discovered deficiencies, failures, and other factors may drive the movement of projects from the Priority 2 list to the Priority 1 list.

Priority 2 projects focus on distribution improvements which are required to achieve fire flows in deficient areas and provide improved circulation and flow path redundancy. All priority 2 projects should be considered important and the City should be working toward implementing these projects during the first half of the planning period, or within the next 5 to 10 years.

Table 8.3.2 summarizes the Priority 2 CIP projects for Newport.

Table 8.3.2 – Priority 2 CIP Projects

Project No.	Description	Project Cost
T2	Siletz River Pump Station - Pump Replacement	\$642,060
D2	12" Redundant Bay Crossing, Idaho Point Option	\$2,333,560
D3	Highway 101 NE 36th to NE 40th Waterline	\$228,780
D5	NE 40th and Golf Course Drive Waterline Replacement	\$389,670
D6	NE Crestview Pl. to 17th Ct. Waterline Loop	\$132,840
D7	NE Avery Street Loop Closure	\$112,770
D8	NW 19th (Nye St. to Hwy 101) and Nye St. (18th to 20th) Waterline	\$153,510
D9	Ocean View (12th to 14th) Waterline Replacement, Loop 13th to 12th	\$196,160
D10		0 \$0
D11	SW Coho Street (27th to 29th) Waterline Replacement	\$106,270
D12	Idaho Point Waterline Replacement and Looping	\$574,315
P1	Candletree Pump Station Rehabilitation	\$206,640
P2	Lakewood Pump Station Rehabilitation	\$187,450
D15	NE 5th St., Benton to Eads	\$107,600
Total		\$5,371,626

8.3.3 Priority 3- Low Priority Projects

Priority 3 projects should be undertaken as need necessitates the implementation of the improvement project and as funding is available. Development patterns and pressures and other factors will likely drive the need for priority 3 projects.

Priority 3 projects focus primarily on distribution improvements to improve circulation and flow, expansion of the distribution system into areas that are currently not served, and other general

improvements. Priority 3 projects should be considered important but not critical to the system’s current operation. The need and importance for priority 3 projects can change as conditions and circumstances change.

Table 8.3.3 summarizes the Priority 3 CIP projects for Newport.

Table 8.3.3 – Priority 3 CIP Projects

Project No.	Description	Project Cost
D13	East Newport Waterline Extensions	\$2,096,510
D4	Highway 101 NE 40th to Circle Way Waterline Replacement	\$509,220
S2	Agate Beach Upper Storage Tank - 1.0 MG GFS	\$1,740,470
S3	City Shops Tank Replacement - 1.0 MG GFS	\$1,657,090
S4	King Ridge Storage Tank - 1.0 MG GFS	\$2,533,740
D14	Water Meter Replacement - Conversion to Touch Read Meters	\$1,461,240
Total		\$9,998,270

It is important to note that Project D14, the conversion to Touch Read Water Meters, has been included as a lower priority since critical needs and fire flow deficiencies should come first. However, analysis provided by meter manufacturers suggests that the City can recoup the cost for this transition in a relatively short period of time and actually begin to save money in the long term. Should funding become available, the City should consider moving forward with this project.

8.4 SDC Update

The City of Newport adopted an updated SDC methodology in the early part of 2008. The updated methodology included recommendations for assessing SDCs for all of the City’s infrastructure sectors. At the time, updated water master planning information was not yet available. Efforts were made to assemble an interim CIP from past water planning efforts and utilizing internal staff knowledge and feedback about project needs and issues and current assumptions about how project will be funded.

This interim planning, referred to as bridge planning, formed the water system CIP and was used to develop the water system SDC methodology for the City. The intent was to establish an interim methodology that could easily be updated once the master plan was completed and a new CIP was established.

The purpose of this section is to provide a summary of the information required to update the water system SDC methodology. Sections 7 and 8 of this master plan should be utilized by the City as supplementing documentation to their SDC methodology. The recommended water system SDC assessment provided in this section should be adopted by resolution and used for water SDC assessment by the City.

8.4.1 SDC Eligibility

An SDC methodology should include an assessment of the SDC eligibility of each improvement project. For a project to be SDC eligible, a nexus or cause/effect relationship should exist between growth and the need for the project or for the need to upsize a facility.

For example, if it is determined that a 500,000 gallon reservoir was needed to satisfy existing deficiencies, but planning suggested constructing a 1,000,000 gallon reservoir to accommodate growth in

the system over the planning period, then the project could be considered to be 50% SDC eligible as half of the planned volume is required to address needs related to growth.

An effort was made to identify the SDC eligibility of each project on the CIP. For consistency with the existing SDC methodology, some completed projects are included on Table 8.4.1 for the purposes of calculating the reimbursement SDC later in this section. These projects are part of the current SDC methodology and should be included in the calculation of the updated SDC assessment.

In some cases, a project is planned to be funded, at least in part, by a GO bond. In these cases, the eligibility of these projects has been reduced to reflect the amount of GO bond funds that are anticipated to be used to fund each specific project based on preliminary planning provided by the City of Newport.

Table 8.4.1 – SDC Eligibility for CIP Projects

Project No.	Project Description	Adjusted Cost Estimate (current)	Reimbursement SDC Eligible (Y/N)	Improvement SDC Eligible (Y/N)	% SDC Eligible	SDC Eligible Cost
T1	Big Creek Water Treatment Plant Improvements	\$12,125,340.00	N	N	0.00%	\$0.00
T3	Upper Lake Syphon Intake	\$612,540.00	N	N	0.00%	\$0.00
T4	Raw Water Transmission Pipe, Dam to Plant	\$1,239,840.00	N	N	0.00%	\$0.00
S1	Agate Beach Lower Storage Tank - 1.0 MG GFS	\$2,009,575.00	N	N	0.00%	\$0.00
D1	Highway 101 SE 40th to 50th Waterline, Hwy. Bore Crossing	\$528,260.40	N	N	0.00%	\$0.00
T2	Siletz River Pump Station - Pump Replacement	\$642,060.00	N	Y	43.00%	\$276,085.80
D2	12" Redundant Bay Crossing, East Option	\$2,333,560.00	N	Y	25.00%	\$583,390.00
D3	Highway 101 NE 36th to NE 40th Waterline	\$228,780.00	N	Y	50.00%	\$114,390.00
D5	NE 40th and Golf Course Drive Waterline Replacement	\$389,670.00	N	Y	25.00%	\$97,417.50
D6	NE Crestview Pl. to 17th Ct. Waterline Loop	\$132,840.00	N	N	0.00%	\$0.00
D7	NE Avery Street Loop Closure	\$112,770.40	N	N	0.00%	\$0.00
D8	NW 19th (Nye St. to Hwy 101) and Nye St. (18th to 20th) Waterline	\$153,510.00	N	N	0.00%	\$0.00
D9	Ocean View (12th to 14th) Waterline Replacement, Loop 13th to 12th	\$196,160.40	N	N	0.00%	\$0.00
D10	Project Eliminated	\$0.00	0	0	0.00%	\$0.00
D11	SW Coho Street (27th to 29th) Waterline Replacement	\$106,270.00	N	N	0.00%	\$0.00
D12	Idaho Point Waterline Replacement and Looping	\$574,314.60	N	Y	25.00%	\$143,578.65
P1	Candletree Pump Station Rehabilitation	\$206,640.00	N	N	0.00%	\$0.00
P2	Lakewood Pump Station Rehabilitation	\$187,450.00	N	N	0.00%	\$0.00
D15	NE 5th St., Benton to Eads	\$107,600.40	N	N	0.00%	\$0.00
D13	East Newport Waterline Extensions	\$2,096,510.40	N	Y	100.00%	\$2,096,510.40
D4	Highway 101 NE 40th to Circle Way Waterline Replacement	\$509,220.00	N	Y	50.00%	\$254,610.00
S2	Agate Beach Upper Storage Tank - 1.0 MG GFS	\$1,740,469.60	N	Y	50.00%	\$870,234.80
S3	City Shops Tank Replacement - 1.0 MG GFS	\$1,657,090.00	N	N	0.00%	\$0.00
S4	King Ridge Storage Tank - 1.0 MG GFS	\$2,533,740.00	N	Y	100.00%	\$2,533,740.00
D14	Water Meter Replacement - Conversion to Touch Read Meters	\$1,461,240.00	N	Y	25.00%	\$365,310.00
Completed Projects						
14	Siletz River Water Intake	complete	N	N	0.00%	\$0.00
15	Siletz River Raw Waterline	complete	N	N	0.00%	\$0.00
16	South Beach 1 MG Reservoir	complete	N	N	0.00%	\$0.00
17	Yaquina Heights 1 MG Reservoir	complete	N	N	0.00%	\$0.00
18	Yaquina Heights 4th Level Pump Station Upgrade	complete	Y	N	50.00%	\$25,000.00
19	East Newport Water Project	complete	Y	N	44.00%	\$161,040.00
20	12-inch HDPE - SW 35th & Hwy 101 to Southshore (8" to 12")	complete	Y	N	100.00%	\$150,000.00
Totals		\$31,885,451.20				\$7,671,307.15

Note that the first 5 projects (Priority 1 CIP Projects) are all shown as non-SDC eligible. This is due to the City’s financing of 4 of the projects completely through a GO bond and 1 of the projects through urban renewal funding.

Based on this analysis, approximately \$7.6-million of the \$32-million should be considered as SDC eligible or around 24% of the total project costs.

8.4.2 Growth in the System

SDCs are assessed against new users of the system to pay for the impact of growth on the water system and the need to construct excess capacity to accommodate that growth. The growth analysis in the existing SDC methodology was developed as an interim projection of growth in the system. A more detailed analysis of growth in the water system was undertaken for this master planning effort.

Section 2 of the master plan provides a detailed analysis of growth in the Newport water system. The analysis includes the following major planning elements:

- Growth is projected to occur at an average rate of 1.25% per year
- Some growth is anticipated outside of the City Limits but within the water system service area and is assumed to grow at the same rate of 1.25%
- The OCCC campus will add up to 820 EDU's by the end of the planning period

Table 8.4.2 summarizes the growth analysis for the Newport water system.

Table 8.4.2 – Newport Growth

Year	1.25% Growth Inside City Limits			1.25% Growth Outside City Limits, Inside UGB			OCCC Central Campus	Total		
	Housing			Housing			EDU	Housing		
	Population	Units	EDU	Population	Units	EDU		Population	Units	EDU
2007	10,455	5,501	11,270					10,455	5,501	11,270
2008	10,586	5,601	11,411					10,586	5,601	11,411
2009	10,718	5,671	11,554					10,718	5,671	11,554
2010	10,852	5,742	11,698	140	74	119		10,992	5,816	11,817
2011	10,988	5,814	11,845	142	75	120	410	11,129	5,889	12,375
2012	11,125	5,886	11,993	144	76	122	410	11,269	5,962	12,525
2013	11,264	5,960	12,143	145	77	124	410	11,409	6,037	12,676
2014	11,405	6,034	12,294	147	78	125	410	11,552	6,112	12,829
2015	11,547	6,110	12,448	149	79	127	410	11,696	6,189	12,985
2016	11,692	6,186	12,604	151	80	128	410	11,843	6,266	13,142
2017	11,838	6,263	12,761	153	81	130	410	11,991	6,344	13,301
2018	11,986	6,342	12,921	155	82	131	410	12,140	6,424	13,462
2019	12,136	6,421	13,082	157	83	133	410	12,292	6,504	13,625
2020	12,287	6,501	13,246	159	84	135	820	12,446	6,585	14,201
2021	12,441	6,583	13,411	160	85	136	820	12,601	6,667	14,368
2022	12,596	6,665	13,579	163	86	138	820	12,759	6,751	14,537
2023	12,754	6,748	13,749	165	87	140	820	12,918	6,835	14,709
2024	12,913	6,832	13,921	167	88	142	820	13,080	6,921	14,882
2025	13,075	6,918	14,095	169	89	143	820	13,243	7,007	15,058
2026	13,238	7,004	14,271	171	90	145	820	13,409	7,095	15,236
2027	13,404	7,092	14,449	173	91	147	820	13,577	7,183	15,416
2028	13,571	7,181	14,630	175	93	149	820	13,746	7,273	15,599
2029	13,741	7,270	14,813	177	94	151	820	13,918	7,364	15,783
2030	13,913	7,361	14,998	179	95	153	820	14,092	7,456	15,970
Change	3,458	1,860	3,728	39	21	34	820	3,637	1,955	4,700

Based on this analysis, there is anticipated to be around 4,700 new EDU's in the system before the end of the planning period. The improvements and recommendations in this master plan have been sized and planned to serve this projected service population including all new residential, commercial, institutional, and industrial customers.

For calculating the new SDC assessments, it should be assumed that growth in the system will be equal to approximately 4,700 equivalent dwelling units.

8.4.3 Reimbursement SDC Calculation

Reimbursement SDCs are charged to new customers for projects that have already been implemented that include additional capacity for the new customers to join the system. A project transitions from being eligible for improvement SDC funds to reimbursement SDC funds when the project is completed and the improvements are constructed.

A summary of the recommended reimbursement SDC for the City of Newport is provided below in Table 8.4.3. These projects are also shown in Table 8.4.1.

Table 8.4.3 – Reimbursement SDC Summary – Newport Water System

Project No.	Project Description	SDC Eligible Cost
18	Yaquina Heights 4th Level Pump Station Upgrade	\$25,000.00
19	East Newport Water Project	\$161,040.00
20	12-inch HDPE - SW 35th & Hwy 101 to Southshore (8" to 12")	\$150,000.00
Total Reimbursement Eligible Costs (A)		\$336,040.00
Total Growth EDU's		4,700
Maximum Reimbursement Water SDC (A/B)		\$71.50

8.4.4 Improvement SDC Calculation

Improvement SDCs are assessed for projects on the CIP that have not yet been undertaken but include capacity to account for the impact of growth on the system.

The improvement SDC calculation for the Newport Water System is provided below in Tables 8.4.4.

Table 8.4.4 – Improvement SDC Summary – Newport Water System

Project No.	Project Description	SDC Eligible Cost
D2	12" Redundant Bay Crossing, East Option	\$583,390
T2	Siletz River Pump Station - Pump Replacement	\$276,086
D3	Highway 101 NE 36th to NE 40th Waterline	\$114,390
D5	NE 40th and Golf Course Drive Waterline Replacement	\$97,418
D12	Idaho Point Waterline Replacement and Looping	\$143,579
D13	East Newport Waterline Extensions	\$2,096,510
D4	Highway 101 NE 40th to Circle Way Waterline Replacement	\$254,610
S2	Agate Beach Upper Storage Tank - 1.0 MG GFS	\$870,235
S4	King Ridge Storage Tank - 1.0 MG GFS	\$2,533,740
D14	Water Meter Replacement - Conversion to Touch Read Meters	\$365,310
Total Improvement Eligible Costs (A)		\$7,335,267.15
Total Growth EDU's		4,700
Maximum Improvement Water SDC (A/B)		\$1,560.70

8.4.5 SDC Credits

When considering SDC assessments, it is important to review as to whether certain SDC credits would be appropriate. SDC credits may be appropriate when a developer undertakes a project or a portion of a project that is part of the SDC methodology. For example, if a developer installs a waterline that is on the City's CIP and part of the SDC methodology, the developer could receive a credit for the work completed to an amount up to the value of what their assessment would have been for properties they are developing.

There are other opportunities for credits and these issues should be discussed on a case-by-case basis.

8.4.6 Water System SDC Summary

Table 8.4.6 below summarizes the recommended SDC assessment for the water system in Newport based upon the updated planning information contained within this master plan. The City should adopt an update to the water system SDC based upon this update to the methodology. The new recommended SDC assessment is approximately \$1,632 per EDU.

Table 8.4.6 – Water System SDC Summary

SDC Component	SDC Amount
Improvement Fee	\$1,560.70
Reimbursement Fee	\$71.50
Subtotal of Water SDC Fees	\$1,632.19