

4. CAPITAL IMPROVEMENTS

One of the primary goals of this Plan Update is to develop capital improvement strategies to alleviate existing and future infrastructure deficiencies and to increase the water quality of stormwater discharged to receiving waters. This section presents a summary of capital improvement projects proposed to achieve these goals.

A detailed capital improvement plan, including project descriptions, construction cost estimates, and project scheduling is presented in a separate document titled: *2004 City of Sumner Stormwater Capital Improvement Plan*. City adoption of this Plan Update would include the adoption of this Capital Improvement Plan (CIP).

4.1 PREVIOUS CAPITAL IMPROVEMENT PROJECTS

The 1992 Stormwater Comprehensive Plan identified 34 capital improvement projects. Projects identified in the 1992 Plan that have not yet been completed were evaluated with City personnel and in the field to determine if they are still required. Those projects that were determined to be in the "problem areas" identified in the 1992 Plan were then evaluated based on economic feasibility and the benefit that they would provide to the City to determine whether they should be included in the current CIP.

Table 4-1 summarizes the status of capital improvement projects identified in the 1992 Plan, their current status, and their relevance to this Plan Update.

Table 4-1. 1992 Stormwater Comprehensive Plan Capital Improvement Projects and Current Status

Project No.	Name	Status	Comment
92-1	Willow Street and Sumner Avenue Improvement	Included in new CIP (Project No. 18).	
92-2	Puyallup Street Improvement	Included in new CIP (Project No. 19).	
92-3	Zehnder Street Outfall System Improvements	Not constructed.	CIP Project Nos. 5 and 21 will reduce the need for this project.
92-4	Pacific Avenue Improvements	Included in new CIP (Project No. 20).	
92-5	Rivergrove Road Outfall	Constructed by development.	Different configuration than recommended in 1992 Plan.
92-6	East Sumner Trunk System with Diversion to Puyallup River	Completed.	
92-7	South SR 410 Diversion Interceptor	Included in new CIP (Project No. 21).	
92-8	Meade McCumber Street/ Valley Avenue Improvement	Partially completed.	Remainder to be constructed in CIP Project Nos. 7 and 22.
(Table Continues)			

Table 4-1. 1992 Stormwater Comprehensive Plan Capital Improvement Projects and Current Status

Project No.	Name	Status	Comment
92-9	Parker Avenue/Elm Street Interceptor	Partially completed.	Remainder to be constructed in CIP Project Nos. 13 and 15.
92-10	South Parker Road Improvements	Not constructed.	Project not required.
92-11	North Parker Connection	Included in new CIP (Project No. 14).	
92-12	64th Street East Improvements	Included in new CIP (Project Nos. 10 and 23).	
92-13	160th and Main Street Improvements	Included in new CIP (Project No. 24).	
92-14	East Elm Street Outfall	Partially completed.	Remainder to be constructed in CIP Project No. 16.
92-15	Van Tassel Road Outfall	Partially completed.	Remainder to be constructed in CIP Project Nos. 11 and 12.
92-16	East Main Street Outfall	Partially completed.	Remainder of project not required.
92-17	Poole Road Outfall	Included in new CIP (Project No. 25).	
92-18	Wahi Road Interceptor	Included in new CIP (Project No. 26).	
92-19	South Valley Avenue Outfall	Not constructed.	Project outside city limits, not included in new CIP.
92-20	Van Ogles Creek Outfall Pipe System Improvements	Not constructed.	Project outside city limits, not included in new CIP.
92-21	Van Ogles Creek Rehabilitation and Crossing Improvements	Not constructed.	Project outside city limits, not included in new CIP.
92-22	Alderton Pond Improvements	Not constructed.	Project outside city limits, not included in new CIP.
92-23	Alderton Creek Rehabilitation and Crossing Improvements	Not constructed.	Project outside city limits, not included in new CIP.
92-24	142nd Avenue Interceptor	Completed.	
92-25	24th Street Outfall to White River	Not constructed.	To be built as part of 24th Street Interchange project.
92-26	16th Street Outfall to White River	Partially completed.	Remainder of project not required.
92-27	139th Avenue East Ditch Improvements	Not constructed.	Project outside city limits, not included in new CIP.
92-28	136th Avenue East and 24th Street East Improvements	Partially completed.	Remainder to be constructed in CIP Project No. 28.
92-29	West NE 16th Outfall and System Improvements	Not constructed.	Project outside city limits, not included in new CIP.

(Table Continues)

Table 4-1. 1992 Stormwater Comprehensive Plan Capital Improvement Projects and Current Status

Project No.	Name	Status	Comment
92-30	West NE 16th Outfall and System Improvements	Not constructed.	Project outside city limits, not included in new CIP.
92-31	Culvert Crossing Railroad at NE 8th Street	Not constructed.	To be constructed as part of 8th Street corridor improvements.
92-32	Puget Power and Light Canal Drainage Improvements	Included in new CIP (Project No. 29).	
92-33	Middle Creek Drainage Improvements	Not constructed	Not included in CIP, would require dredging Middle Creek.
92-34	Salmon Creek Improvements	Included in new CIP (Projects Nos. 33 – 39).	

4.2 RECOMMENDED CAPITAL IMPROVEMENT PROJECTS

The capital improvement projects proposed in the *2004 City of Sumner Stormwater Capital Improvement Plan* include projects recommended in the 1992 Plan, projects identified by City staff, and projects identified through research into current stormwater infrastructure conditions and problem areas.

Project priority was determined by considering the surcharge/flooding potential indicated during hydraulic modeling conducted for the 1992 Plan, project conformance with City planning, recommendations by City staff, and availability of funding.

4.2.1 Recommended Capital Improvement Project Summary

Figure 4-1 presents a site map showing the locations of proposed capital improvement projects. Table 4-2 summarizes each project, listing priority, scheduled completion date, and estimated construction costs in 2004 dollars, and at the expected time of completion. This table also identifies projects that are expected to be funded by developers as part of individual development projects. These costs are not included in the costs used to derive the recommended system development charges that are described in Section 5.0.

There are a total of 45 capital improvement projects identified in the proposed capital improvement project list, with 22 high-priority projects, 11 medium-priority projects, and 12 low-priority projects. Projects prioritized as high, medium, and low are scheduled for completion in 0 to 5 years, 5 to 10 years, and 10 to 15 years, respectively. The total estimated cost for these projects is \$16,334,840, in 2004 dollars.

Table 4-2. Capital Improvement Plan Schedule

Project No. – Description	Project Priority	Funding Source	Total Cost Year 2004 (\$)	Year of Completion										
				2004 (\$)	2005 (\$)	2006 (\$)	2007 (\$)	2008 (\$)	2009 (\$)	2010 (\$)	2011 (\$)	2012 (\$)	2013 (\$)	2014–2024 (\$)
Seattle Construction Cost Index – 4/14/03 (increases at 4.5%)			7642	7642	7986	8345	8721	9113	9523	9952	10400	10868	11357	11868
Capital Improvement Projects														
CIP No. 1 – Alder Avenue High Flow Bypass	LOW	C	\$4,280,000											\$6,647,000
CIP No. 2 – Gary Street Improvements	MED	C	\$234,000							\$318,000				
CIP No. 3 – 42-Inch Puyallup River Outfall Improvements	HIGH	C	\$38,000		\$40,000									
CIP No. 4 – Railroad Street Improvements	HIGH	C	\$64,000			\$70,000								
CIP No. 5 – Sessler Outfall High Flow Bypass	HIGH	C	\$27,000		\$28,000									
CIP No. 6 – River Street Improvements	LOW	C	\$143,000											\$222,000
CIP No. 7 – 151st Avenue E and 152nd Avenue E Improvements	MED	C	\$328,000										\$487,000	
CIP No. 8 – 63rd Street Court E Improvements	MED	C	\$295,000							\$384,000				
	MED	LID	\$95,000							\$124,000				
CIP No. 9 – Bock Avenue Improvements	HIGH	C	\$69,000					\$82,000						
CIP No. 10 – 64th Street E Outfall Improvements	MED	C	\$158,000						\$197,000					
CIP No. 11 – South 160th Avenue E Improvements	HIGH	C	\$85,000			\$93,000								
CIP No. 12 – North 160th Avenue E Improvements	HIGH	C	\$235,000			\$257,000								
CIP No. 13 – Elm Street Interceptor	HIGH	C	\$149,000			\$163,000								
CIP No. 14 – North Parker Road Improvements	HIGH	C	\$89,000			\$97,000								
	HIGH	X	\$5,000		\$5,000									
CIP No. 15 – Parker Road Improvements	HIGH	C	\$103,000		\$108,000									
CIP No. 16 – Elm Street Outfall Improvements	HIGH	C	\$123,000			\$134,000								
CIP No. 17 – Main Street Improvements	LOW	C	\$135,000											\$210,000
CIP No. 18 – Willow Street Interceptor and Tributary Improvements	LOW	C	\$963,000											\$1,496,000
CIP No. 19 – Puyallup Street Outfall Improvements	LOW	C	\$338,000											\$525,000
CIP No. 20 – Valley Avenue E Improvements	HIGH	C	\$243,000	\$243,000										
CIP No. 21 – South SR-410 Diversion Interceptor	LOW	??	\$1,022,000											\$1,587,000
CIP No. 22 – Meade McCumber Street Improvements	LOW	C	\$117,000											\$182,000
CIP No. 23 – 64th Street E Improvements	HIGH	X	\$75,000	\$75,000										
CIP No. 24 – East Main Street/160th Avenue E Improvements	HIGH	C	\$199,000					\$237,000						
CIP No. 25 – Poole Road Outfall Improvements	LOW	C	\$288,000											\$447,000
CIP No. 26 – Wahi Road Interceptor	LOW	??	\$1,148,000											\$1,783,000
CIP No. 27 – South Parker Road Improvements	HIGH	C	\$49,000			\$54,000								
CIP No. 28 – 136th Avenue E Improvements	HIGH	C	\$374,000			\$408,000								
CIP No. 29 – Puget Sound Power and Light Canal Drainage	LOW	C	\$402,000											\$624,000

(Table Continues)

Table 4-2. Capital Improvement Plan Schedule (Continued)

Project No. – Description	Project Priority	Funding Source	Total Cost Year 2004 (\$)	Year of Completion											
				2004 (\$)	2005 (\$)	2006 (\$)	2007 (\$)	2008 (\$)	2009 (\$)	2010 (\$)	2011 (\$)	2012 (\$)	2013 (\$)	2014–2024 (\$)	
CIP No. 30 – Zehnder Street Improvements	HIGH	C	\$158,000	\$158,000											
CIP No. 31 – 62nd Street East	MED	C	\$196,000							\$244,000					
CIP No. 32 – Valley Avenue Improvements	HIGH	C	\$92,000				\$105,000								
CIP No. 33 – REI/Railroad Culvert Improvements	HIGH	C	\$126,000		\$132,000										
CIP No. 34 – Parker Road Culvert Improvements	HIGH	C	\$54,000			\$59,000									
CIP No. 35 – Puyallup Watershed Access Culvert Improvements	HIGH	C	\$50,000				\$57,000								
CIP No. 36 – 47th Street Court E Culvert Improvements	HIGH	C	\$48,000					\$57,000							
CIP No. 37 – 160th Avenue E Culvert Improvements	HIGH	C	\$399,000				\$455,000								
CIP No. 38 – 162nd Avenue E Culvert Improvements	MED	C	\$112,000						\$140,000						
CIP No. 39 – East Main Street Culvert Improvements	MED	C	\$26,000							\$35,000					
CIP No. 40 – Salmon Creek Restoration	MED	C	\$213,000						\$265,000						
CIP No. 41 – 64th Street E Culvert Improvements	MED	C	\$286,000								\$407,000				
CIP No. 42 – 8th Street E Corridor Improvements	HIGH	C	\$162,840		\$162,840										
CIP No. 43 – East Valley Highway Improvements – Detention Pond with Bioswale	MED	C	\$1,652,000					\$1,970,000							
CIP No. 44 – East Valley Highway Improvements	LOW	C	\$753,000												\$1,169,000
CIP No. 45 – West Valley Highway Improvements – Detention Pond with Bioswale	LOW	C	\$452,000												\$702,000
SITE A.1 – 42-Inch Outfall Water Quality Facility	MED	C	\$247,000											\$367,000	
SITE A.2 – 48-Inch Outfall Water Quality Facility	MED	C	\$239,000											\$355,000	
SITE C – Detention Pond with Water Quality Facility	LOW	X	\$497,000												\$772,000
SITE D – Detention Pond with Water Quality Facility	MED	C	\$1,236,000						\$1,540,000						\$1,919,000
SITE E – Detention Pond with Water Quality Facility	LOW	X	\$709,000												\$1,101,000
SITE H – Detention Pond with Water Quality Facility	LOW	X	\$472,000												\$733,000
SITE I – Detention Pond with Water Quality Facility	LOW	X	\$314,000												\$488,000
SITE J – Water Quality Treatment Vault	HIGH	C	\$305,000				\$348,000								
TOTAL – CAPITAL ASSET FUNDS (Includes inflation) (City-funded only – exclude developer or LID-funded projects)			\$16,334,840	\$401,000	\$470,840	\$1,335,000	\$965,000	\$2,346,000	\$2,386,000	\$384,000	\$353,000	\$407,000	\$1,209,000	\$14,143,000	

FUNDING SOURCE IDENTIFICATION

- LID Local Improvement District
- C Capital funds
- X Developer funded and not scheduled for payment by City.
- ?? Outside of current city limits – not included in SDC review.

PROJECT PRIORITY IDENTIFICATION

- HIGH Completed within 0–5 years
- MED Completed within 5–10 years
- LOW Completed within 10–20 years

4.3 REGIONAL STORMWATER FACILITIES

Ten sites were identified within the Sumner city limits as potential sites for the construction of regional stormwater flow/water quality control facilities. The criteria used to objectively evaluate each site for its potential to provide regional stormwater control are as follows:

- **Conformance with City Planning:** Area identified as regional facility sites in the City's existing planning documents.
- **Availability of Property:** The areas identified for potential regional facility locations are either owned by the City or known to be available for purchase presently or in the future.
- **Hydraulic Feasibility:** Potential regional facility locations were evaluated to verify that it was possible to route stormwater to the area either through existing conveyance, retrofitting existing conveyance, or installing new conveyance.
- **Location Within the Watershed:** Potential regional facilities located near the discharge point of the watershed are able to collect more runoff than those located nearer the headwaters. Furthermore, facilities located far from a discharge point must discharge back into the collections system unless separate conveyance lines are also constructed. Thus, stormwater control facilities located near the watershed discharge are more valuable than those located near the headwaters.
- **Percent of Watershed Captured:** This criterion evaluates the percent of the total watershed runoff that could be routed to and through the facility if the necessary stormwater conveyance was in place. The greater the percentage of capture, the more valuable the facility.
- **Detention and/or Treatment Percent:** This criterion is used to quantify the capacity of each site to detain and/or treat the stormwater that could potentially be routed to the site if the necessary infrastructure was in place.
- **Feasibility of Stormwater Control Facilities:** Four stormwater facility elements were evaluated for a majority of the potential regional facility sites. The stormwater facility options are as follows:
 - Wet Pond
 - Detention Pond
 - Bioswale
 - Water Quality Vault

Table 4-3 summarizes the evaluation of each of the nine potential regional facility sites including site ID, site location, and recommended site use. The locations of each potential regional facility site are shown on Figure 4-2.

Table 4-3. Summary of Potential Regional Facility Sites

Site ID	Site Location	Recommended Use
Site A	South Sumner	Construct water quality control facilities to service existing 48-inch and 42-inch outfalls to the Puyallup River.
Site B	South Sumner	Sumner School District 320 owns this parcel. Construction of stormwater facility not feasible due to location in watershed and current land use.
Site C	Southeast Sumner	Construct stormwater flow/water quality control facility to service future development.
Site D	Southeast Sumner	Construct stormwater flow/water quality control facility to service future development.
Site E	East Central Sumner	Construct stormwater flow/water quality control facility to service future development OR construct water quality control facility to service existing streets.
Site F	Central Sumner	Construction of stormwater facility at this location not feasible due to location in watershed and hydraulic complications.
Site G	East Central Sumner	Construction of stormwater facility at this location not feasible due to location in watershed.
Site H	Southeast Sumner	Construct stormwater flow/water quality control facility to service future development.
Site I	Central Sumner	Construct stormwater flow/water quality control facility to service future development.
Site J	Central Sumner	Construct water quality control facility to service existing 60-inch outfall to Salmon Creek.

Using the criteria listed above, it was determined that construction of a regional stormwater facility was feasible at seven of the ten potential sites, with one high-priority project, two medium-priority projects, and four low-priority projects being identified. Estimated construction costs and time of completion for each of these facilities are outlined in Table 4-2. These facilities are described in detail in the *2004 City of Sumner Stormwater Capital Improvement Plan*.