

7. CAPITAL IMPROVEMENT PLAN UPDATE

The city-wide Stormwater Management Plan completed in 2000 included a Capital Improvement Plan (CIP) for the recommendations made in that report. Those recommendations included a wide variety of BMPs to address stormwater quantity and quality. The recommendations were made prior to the development of the WDNR NR 216 and NR 151 rules. These rules stipulate that certain municipalities (including the City of Manitowoc) must meet certain stormwater runoff quality requirements. At the time that this report was being completed, Earth Tech was also completing a stormwater utility feasibility study. This work provides additional information on revenue from a potential utility. An updated CIP has been made using the recommendations made in this report (Table 7-1), assuming an average annual CIP budget of approximately \$800,000 for new stormwater projects. This budget is based upon preliminary analysis of revenue generated from a stormwater utility. The prioritization of projects was collaboratively developed with City staff.

Certain elements of the previous CIP, especially those types of BMPs not considered in this report, could be considered in addition to the recommendations made in this report. As the City comes under permit (NR 216), gains more understanding of their non-point pollution loadings, additional water quality projects may need to be undertaken. This will require another update to the CIP. Other reasons for considering additional projects, or varying from the CIP plan could include grant opportunities (e.g. stream bank / ravine stabilization), and opportunities to incorporate facilities into other public works projects (e.g. streets projects).

In addition to capital improvements, Table 7-1 includes an estimate of future maintenance costs associated with the improvements. The maintenance items include landscaping maintenance, structure inspection and cleaning, and amortized dredging costs. To estimate landscaping maintenance and structure inspection and cleaning costs, it was assumed that the average area to maintain per pond is four acres. This yields a cost of \$5,000 per year per pond. As more ponds are constructed in the future, the annual budget for these activities will increase. To estimate the amortized dredging costs, it is estimated that 1 percent of the original capital cost is required to be set aside annually to fund the dredging of the ponds. It is anticipated that dredging would be required every 15 to 25 years, per pond.

The updated CIP and maintenance costs are presented in Table 7-1.

**TABLE 7-1
10-YEAR CAPITAL IMPROVEMENT PLAN & MAINTENANCE COSTS**

Improvement Description	Anticipated Year to Construct	Capital Cost of Project	Yearly Capital Costs											
			2007	2008	2009	2010	2011	2012	2013	2014	2015	2016		
Regional Pond #11	2007	\$366,000	\$ 366,000											
Regional Pond #9	2007	\$146,900	\$ 146,900											
Regional Pond #5	2008	\$983,000		\$ 983,000										
Regional Pond #17	2009	\$438,900			\$ 438,900									
Regional Pond #18	2009	\$436,700			\$ 436,700									
Regional Pond #13	2010	\$287,400				\$ 287,400								
Regional Pond #14	2010	\$353,900				\$ 353,900								
Regional Pond #10	2010	\$160,200				\$ 160,200								
Regional Pond #12	2011	\$943,300					\$ 943,300							
Regional Pond #15	2012	\$510,500						\$ 510,500						
Regional Pond #8	2013	\$246,800							\$ 246,800					
Regional Pond #16	2013	\$834,500							\$ 834,500					
Regional Pond #2 OR Ponds #3 & 4	2014	\$1,300,000								\$ 1,300,000				
Regional Pond #1	2015	\$476,900									\$ 476,900			
Regional Pond #6	2016	\$280,200										\$ 280,200		
Regional Pond #7	2016	\$186,800											\$ 186,800	
Total Yearly Capital Cost			\$ 512,900	\$ 983,000	\$ 875,600	\$ 801,500	\$ 943,300	\$ 510,500	\$ 1,081,300	\$ 1,300,000	\$ 476,900	\$ 467,000		

ANNUAL MAINTENANCE - MUNICIPAL STORMWATER FACILITIES

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
General landscape care, inlet & outlet cleaning		\$10,000	\$15,000	\$25,000	\$40,000	\$45,000	\$50,000	\$60,000	\$65,000	\$70,000
Amortized Dredging Costs		\$5,129	\$14,959	\$23,715	\$31,730	\$41,163	\$46,268	\$57,081	\$70,081	\$74,850
Total Annual Maintenance Cost Estimate		\$15,129	\$29,959	\$48,715	\$71,730	\$86,163	\$96,268	\$117,081	\$135,081	\$144,850
TOTAL ANNUAL CAPITAL AND MAINTENANCE COST ESTIMATE		\$998,129	\$905,559	\$850,215	\$1,015,030	\$596,663	\$1,177,568	\$1,417,081	\$611,981	\$611,850



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