

(VALUES ROUNDED TO NEAREST 1000, SUMMATION VALUES MAY BE SLIGHTLY OFF DUE TO ROUNDING.)

Implementation Initiatives		Issues	Partners							CRWD Cost Share	One-Time CRWD Cost	Annual / Maint. CRWD Cost	COSTS										10-Year Total				
			Non-Profit/Community Groups	Business/Landowners	Cities	School District	Ramsey City/RCD	WD / WMO	University/College				Agencies	2011	2012	2013	2014	2015	2016	2017	2018	2019		2020			
Theme Key for Implementation Section:																											
	Bringing Water Back to St. Paul																										
	Partnership & Community Connections																										
	Innovation & Emerging																										
	Adaptive Management																										
	New Information Technology																										
TOTAL COSTS																											
ADMINISTRATION																											
101	Administration																										
A	[Administrative Initiatives]																										
	2010 Budget and Levy																										
	Annual Audit																										
	Debt Service Requirements																										
	Citizen Advisory Committee																										
	Speakers for CAC																										
	Annual Report																										
	Evaluate Staff Roles																										
	Lease																										
B	Clean Water Legacy and Other Funding Opportunities	12					x			x	100%	\$5,000	\$20,000	-	-	-	-	-	-	\$26,000	\$27,000	\$28,000	\$29,000			\$109,000	
C	Program Effectiveness Audit	13							x	x	100%	-	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$30,000
D	Annually complete BWSR's PRAP and achieve the high performance standards	14								x	100%	-	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$30,000	
PROGRAMS																											
201	Groundwater Protection																										
A	[Program Initiatives]																										
	Well Sealing Cost Share																										
	Cleveland/Randolph GW Study																										
B	Groundwater Studies	7	6					x		x	50%	-	\$25,000	-	-	\$28,000	\$29,000	\$30,000	\$31,000	\$32,000	\$33,000	\$34,000				\$216,000	
C	Ramsey County Groundwater Plan Initiatives	7	6						x	x	100%	-	\$25,000	\$26,000	\$27,000	\$27,000	\$28,000	\$29,000	\$30,000	\$31,000	\$32,000	\$33,000	\$34,000			\$295,000	
207	Rulemaking/Rule Revisions																										
A	[Program Initiatives]																										
	Evaluate Rules																										
	Annual TAC Meeting Re: Rules																										
B	Rule Comparison/Review with Other WMOs	16	15					x		x	100%	\$45,000	-	\$15,000	\$16,000	\$16,000	-	-	-	-	-	-	-	-	-	\$48,000	
C	Evaluate Green Regulatory Framework	9	15						x	x	100%	\$15,000	-	\$5,000	\$5,000	\$5,000	-	-	-	-	-	-	-	-	-	\$16,000	
208	Permitting																										
A	[Program Initiatives]																										
	Implement Permitting Program																										
	TAC Rules Meetings																										
	Evaluate dollar amounts for fees, etc.																										
	Electronic permit/fee tracking system																										
	Assess compliance rates																										
	Inspection process for BMP function and surety funds																										
	Correlate monitoring data to permitted BMPs, activities																										
	Present at water resources conferences																										
	Monitor effectiveness of filtration BMPs																										
B	Web Based Permit Tracking Tool	16	3	9					x		100%	\$15,000	\$5,000	\$10,000	\$11,000	\$11,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$7,000	\$7,000		\$75,000	
C	Provide Technical Assistance to Industrial Permittees within the District	4							x		100%	\$12,000	\$5,000	\$9,000	\$10,000	\$10,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$7,000	\$7,000			\$72,000	
210	Stewardship Grant																										
A	[Program Initiatives]																										
	Stewardship/Partner Grant community outreach																										
	Stewardship/Partner Grant project inspection																										
	Pre-application site visits																										
	Partnership with Ramsey Conservation District																										
B	Actively Promote Grant Projects as Demonstration Sites	10	1						x		100%	-	\$5,000	-	-	-	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$7,000	\$7,000		\$43,000	
C	Evaluate Grant Distribution and Target Areas	10	1							x	100%	\$5,000	\$1,000	\$3,000	\$3,000	\$3,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$17,000	
211	Monitoring and Data Assessment																										
A	[Program Initiatives]																										
	Water quality monitoring stations																										
	Villa Park monitoring																										
	2008 Water Monitoring Report																										
	Plan based on 2008 Water Monitoring Report																										
	Long term storage of monitoring data																										
	Coordinated illicit discharge program																										
	Lake monitoring																										
	Assist St. Paul with NPDES monitoring																										
	Wetland biological integrity monitoring																										
	Loeb Lake/Willow Reserve monitoring																										
	Monitoring QA plan																										
	Non-CRWD BMP Inventory																										
B	10-Year District-Wide Monitoring Plan	13	7							x	100%	\$16,000	\$8,000	\$13,000	\$13,000	\$14,000	\$8,000	\$9,000	\$9,000	\$9,000	\$9,000	\$10,000	\$10,000	\$10,000		\$105,000	
C	Source Assessment Monitoring	4	7																								






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Implementation Initiatives		Issues		Partners							CRWD Cost Share	One-Time CRWD Cost	Annual / Maint. CRWD Cost	COSTS										10-Year Total		
				Non-Profit/Community Groups	Business/Landowners	Cities	School District	Ramsey City/RCD	WD / WMO	University/College				Agencies	2011	2012	2013	2014	2015	2016	2017	2018	2019		2020	
Theme Key for Implementation Section:																										
	Bringing Water Back to St. Paul																									
	Partnership & Community Connections																									
	Innovation & Emerging																									
	Adaptive Management																									
	New Information Technology																									
E	Online Monitoring Data	8										100%	\$10,000	\$2,000	-	-	-	\$6,000	\$6,000	\$6,000	\$2,000	\$3,000	\$3,000	\$3,000	\$29,000	
220	Education and Outreach												\$170,000	\$171,000	\$232,000	\$239,000	\$246,000	\$194,000	\$200,000	\$206,000	\$210,000	\$217,000	\$223,000	\$230,000	\$2,197,000	
A	(Education Plan) Baseline Stormwater Knowledge Survey	1										100%	\$45,000	-	\$15,000	\$16,000	\$16,000	-	-	-	-	-	-	-	-	\$48,000
B	(Education Plan) Stormwater Education: Homeowners	1										100%	-	\$60,000	\$62,000	\$64,000	\$66,000	\$68,000	\$70,000	\$72,000	\$74,000	\$76,000	\$78,000	\$81,000	\$708,000	
C	(Education Plan) Stormwater Education: Municipal Staff	1										100%	-	\$20,000	\$21,000	\$21,000	\$22,000	\$23,000	\$23,000	\$24,000	\$25,000	\$25,000	\$26,000	\$27,000	\$236,000	
D	(Education Plan) Stormwater Education: Contractors	1										100%	-	\$20,000	\$21,000	\$21,000	\$22,000	\$23,000	\$23,000	\$24,000	\$25,000	\$25,000	\$26,000	\$27,000	\$236,000	
E	(Education Plan) Knowledge and Behavior Change Measurement	1										100%	\$45,000	-	\$15,000	\$16,000	\$16,000	-	-	-	-	-	-	-	-	\$48,000
F	Water Awareness via District Infrastructure	1										100%	\$10,000	\$5,000	\$9,000	\$9,000	\$9,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$7,000	\$7,000	\$70,000	
G	Public Awareness and Participation	1										100%	\$25,000	\$25,000	\$34,000	\$35,000	\$36,000	\$28,000	\$29,000	\$30,000	\$31,000	\$32,000	\$33,000	\$34,000	\$322,000	
H	Collaboration for Diverse Group Outreach	1										100%	-	\$20,000	\$21,000	\$21,000	\$22,000	\$23,000	\$23,000	\$24,000	\$25,000	\$25,000	\$26,000	\$27,000	\$236,000	
I	District BMP Walking Tour Guides	1										100%	\$5,000	\$1,000	-	-	0	\$3,000	\$3,000	\$3,000	\$1,000	\$1,000	\$1,000	\$1,000	\$14,000	
J	"Bring Water Back to St. Paul" Campaign	20	1	4								100%	\$40,000	\$20,000	\$34,000	\$35,000	\$36,000	\$23,000	\$23,000	\$24,000	\$25,000	\$25,000	\$26,000	\$27,000	\$279,000	
225	Technical Resources and Information Sharing												\$265,000	\$127,000	\$167,000	\$172,000	\$177,000	\$141,000	\$145,000	\$150,000	\$156,000	\$161,000	\$166,000	\$171,000	\$1,605,000	
A	Interactive Storm Sewer/Pollutant Map	8	1	20								100%	\$25,000	\$5,000	-	-	\$15,000	\$15,000	\$16,000	\$6,000	\$6,000	\$7,000	\$7,000	\$7,000	\$72,000	
B	Information Dissemination: Multiple Audiences/Languages	8	2									100%	\$10,000	\$2,000	\$5,000	\$6,000	\$6,000	\$2,000	\$2,000	\$2,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$34,000
C	Watershed Information Clearinghouse	8										100%	-	\$5,000	\$5,000	\$5,000	\$5,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$7,000	\$7,000	\$59,000	
D	Annual CIP Review, Planning and Coordination with Partners	11										100%	-	\$15,000	-	-	-	-	-	-	\$18,000	\$19,000	\$20,000	\$20,000	\$77,000	
E	Review of District Partner Planning Documents (Non-CIP)	11										100%	-	\$5,000	\$5,000	\$5,000	\$5,000	\$6,000	\$6,000	\$6,000	\$7,000	\$7,000	\$7,000	\$7,000	\$59,000	
F	Unregulated Property Stormwater Management Planning	4	11									100%	-	\$5,000	-	-	-	-	-	-	\$6,000	\$6,000	\$7,000	\$7,000	\$26,000	
G	Alternative (Non-Infiltration) Volume Reduction BMP Guidance	15	9									100%	\$20,000	-	\$7,000	\$7,000	\$7,000	-	-	-	-	-	-	-	-	\$21,000
H	BMP Performance Database	13										100%	\$30,000	\$5,000	-	-	\$17,000	\$17,000	\$18,000	\$6,000	\$6,000	\$6,000	\$7,000	\$7,000	\$78,000	
I	Watershed Approach: MS4 & TMDL Compliance	16	11	4								100%	\$150,000	\$50,000	\$103,000	\$106,000	\$109,000	\$56,000	\$58,000	\$60,000	\$61,000	\$63,000	\$65,000	\$67,000	\$750,000	
J	Strategic Project Preparation	12										100%	-	\$20,000	\$21,000	\$21,000	\$22,000	\$23,000	\$23,000	\$24,000	\$25,000	\$25,000	\$26,000	\$27,000	\$236,000	
K	Joint BMP Inspection and Maintenance Program	3	16									100%	\$30,000	\$10,000	\$21,000	\$21,000	\$22,000	\$11,000	\$12,000	\$12,000	\$12,000	\$13,000	\$13,000	\$13,000	\$150,000	
L	Inspection Support for Partners	16	3									100%	-	\$5,000	-	-	-	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$7,000	\$7,000	\$43,000	
228	Future Trends: Research and Positioning												\$440,000	\$115,000	\$113,000	\$117,000	\$120,000	\$225,000	\$232,000	\$239,000	\$184,000	\$190,000	\$196,000	\$202,000	\$1,818,000	
A	Climate Change Impacts: Research and Analysis	9	5									100%	\$25,000	\$10,000	-	-	\$21,000	\$21,000	\$22,000	\$12,000	\$13,000	\$13,000	\$13,000	\$13,000	\$115,000	
B	Climate Change Impacts: Action	9	5									100%	\$10,000	\$5,000	-	-	-	-	-	\$9,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$39,000
C	Research on Innovative BMPs	9										100%	-	\$65,000	\$67,000	\$69,000	\$71,000	\$73,000	\$75,000	\$78,000	\$80,000	\$82,000	\$85,000	\$87,000	\$768,000	
D	Design for Water Resources Awareness	1	20									100%	-	\$30,000	\$31,000	\$32,000	\$33,000	\$34,000	\$35,000	\$36,000	\$37,000	\$38,000	\$39,000	\$40,000	\$354,000	
E	National Speakers on Key Topics	11	9									100%	-	\$5,000	\$5,000	\$5,000	\$5,000	\$6,000	\$6,000	\$6,000	\$6,000	\$7,000	\$7,000	\$7,000	\$59,000	
F	Goals for Emerging Issues: Contaminants	4										100%	\$30,000	-	\$10,000	\$11,000	\$11,000	-	-	-	-	-	-	-	-	\$32,000
G	Analysis of Emerging Issues: Contaminants	4										100%	\$80,000	-	-	-	\$30,000	\$31,000	\$31,841	-	-	-	-	-	-	\$93,000
H	Project to Address Emerging Issues: Contaminants	4										100%	\$120,000	-	-	-	-	-	-	-	\$37,000	\$38,000	\$39,000	\$40,000	\$154,000	
I	Assessment of water quality and ecology of Springs	20	7									100%	\$10,000	-	-	-	-	-	-	-	\$3,000	\$3,000	\$3,000	\$3,000	\$13,000	
J	Evapotranspiration Rates Investigation	9										0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	Green Infrastructure Barriers Assessment	17										100%	\$15,000	-	-	-	-	\$5,628	\$5,796	\$5,970	0	0	0	0	\$17,000	
L	Strategy for Existing Site Stormwater Standards	4	5	6	15							100%	\$150,000	-	-	-	-	\$56,000	\$58,000	\$59,703	-	-	-	-	\$174,000	
230	GIS												\$93,000	\$71,000	\$90,000	\$93,000	\$96,000	\$87,000	\$90,000	\$93,000	\$94,000	\$96,000	\$99,000	\$102,000	\$941,000	
A	[Program Initiatives]													\$59,000	\$60,000	\$62,000	\$64,000	\$66,000	\$68,000	\$70,000	\$72,000	\$74,000	\$76,000	\$79,000	\$692,000	
	GIS software/hardware																									
	GIS staff training																									
B	GIS Program Development	14										100%	\$3,000	\$2,000	\$3,000	\$3,000	\$3,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$21,000
C	Permitted Discharge Assessment	7	4									100%	\$20,000	\$1,000	-	-	\$9,000	\$9,000	\$9,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$32,000
D	Stormwater BMP Inventory & Multi-Jurisdictional Database	13										100%	\$50,000	\$10,000	\$27,000	\$28,000	\$29,000	\$11,000	\$12,000	\$12,000	\$12,000	\$13,000	\$13,000	\$13,000	\$171,000	
E	District Boundary Correction	16										100%	\$20,000	-	-	-	-	-	-	-	\$6,000	\$6,000	\$7,000	\$7,000	\$26,000	
240	Safety Program												\$9,000	\$17,000	\$20,000	\$21,000	\$22,000	\$19,000	\$20,000	\$20,000	\$21,000	\$21,000	\$22,000	\$23,000	\$209,000	
A	[Program Initiatives]													\$17,000	\$17,000	\$18,000	\$18,000	\$19,000	\$20,000	\$20,000	\$21,000	\$21,000	\$22,000	\$23,000	\$200,000	
	Proper equipment																									
	Equipment repair and maintenance																									
	Staff CSE and other safety training																									
B	Regular Safety Audits	14										100%	\$9,000	-	\$3,000	\$3,000										

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				Non-Profit/Community Groups	Business/Landowners	Cities	School District	Ramsey City/RCD	WD / WMO	University/College				Agencies	2011	2012	2013	2014	2015	2016	2017	2018	2019		2020					
Theme Key for Implementation Section:																														
	Bringing Water Back to St. Paul																													
	Partnership & Community Connections																													
	Innovation & Emerging																													
	Adaptive Management																													
	New Information Technology																													
E	Como 2 Feasibility Study	4	11										100%	\$60,000	-	\$21,000	\$21,000	\$22,000	-	-	-	-	-	-	-	-	-	-	\$64,000	
F	Como 4 Feasibility Study	4	11										100%	\$60,000	-	-	-	\$23,000	\$23,000	\$24,000	-	-	-	-	-	-	-	-	-	\$70,000
G	Como 5 Feasibility Study	4	11										100%	\$40,000	-	-	-	-	-	-	\$12,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000	\$51,000	
H	Como 6 Feasibility Study	4	11										100%	\$40,000	-	-	-	-	-	-	\$12,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000	\$51,000	
I	Como Lake Implementation Audit	13											100%	\$20,000	-	-	-	\$8,000	\$8,000	\$8,000	-	-	-	-	-	-	-	-	\$23,000	
313	Lake McCarrons Subwatershed																													
A	[Project Initiatives]															\$31,000	\$32,000	\$33,000	\$34,000	\$35,000	\$36,000	\$37,000	\$39,000	\$40,000	\$41,000	\$42,000	\$42,000	\$42,000	\$370,000	
	Villa Park weir monitoring																													
	Villa Park implementation Phase 1																													
	Lake McCarrons Alum Treatment Project																													
B	Fish Population Monitoring	17	2	4									0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
C	Exotic and Nuisance Species Prevention Program	17	4										0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
315	Loeb Lake Subwatershed													\$60,000		\$21,000	\$21,000	\$22,000											\$64,000	
A	(Loeb/Willow) Southeast Pond Investigation	4											100%	\$25,000	-	\$9,000	\$9,000	\$9,000	-	-	-	-	-	-	-	-	-	-	\$27,000	
B	(Loeb/Willow) Good Housekeeping Assessment	4											100%	\$15,000	-	\$5,000	\$5,000	\$5,000	-	-	-	-	-	-	-	-	-	-	\$16,000	
C	(Loeb/Willow) Invasive Species Monitoring	4	17										0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
D	(Loeb/Willow) Aquatic Plant Management Coordination	4	17										0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
E	(Loeb/Willow) Fish Stocking Plan with DNR	4	17										0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
F	(Loeb/Willow) Planning with Stakeholder Group	17	19	20	11	x	x	x					100%	\$20,000	-	\$7,000	\$7,000	\$7,000	-	-	-	-	-	-	-	-	-	-	\$21,000	
317	Crosby Lake Subwatershed													\$75,000		\$26,000	\$27,000	\$27,000											\$80,000	
A	Crosby Lake Management Plan	4	17										100%	\$75,000	-	\$26,000	\$27,000	\$27,000	-	-	-	-	-	-	-	-	-	-	\$80,000	
320	Trout Brook Subwatershed													\$350,000		\$206,000	\$292,000	\$218,000	\$156,000	\$160,000	\$165,000	\$238,000	\$144,000	\$149,000	\$153,000	\$153,000	\$153,000	\$1,881,000		
A	[Project Initiatives]															\$106,000	\$110,000	\$113,000	\$116,000	\$120,000	\$123,000	\$127,000	\$131,000	\$135,000	\$139,000	\$143,000	\$143,000	\$1,257,000		
	Inspection of system																													
	Tunnel repairs																													
	MS4 compliance and BMP implementation																													
	Plan based on 2008 Water Monitoring Report																													
	Illicit discharge detection/monitoring																													
	Center/Rice Street subwatershed analysis																													
	Upper Mississippi River Bacteria TMDL																													
	Use TBI as educational/WQ tool to increase stormwater awareness																													
B	Upgrade/Calibration of TBI Model	5											100%	\$100,000	-	\$34,000	\$35,000	\$36,000	-	-	-	-	-	-	-	-	-	-	\$106,000	
C	MS4 Compliance and Annual Review of MS4 Requirements	16	11										100%	-	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$12,000	
D	Restoration and Daylighting Assessment	20	1										100%	\$40,000	-	-	-	\$15,007	\$15,457	\$15,921	0	0	0	0	0	0	0	0	\$46,000	
E	(TBI) Easement Verification	5	11										100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
F	(TBI) Regular Inspection	5											100%	-	\$19,190	\$4,000	\$85,000	\$4,000	\$5,000	\$5,000	\$5,000	\$103,000	\$5,000	\$5,000	\$6,000	\$6,000	\$6,000	\$227,000		
G	(TBI) Television Inspection	5											100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
H	Web System for Receiving/Addressing Illicit Discharge Reports	4	7										100%	\$5,000	\$1,000	-	-	-	-	-	-	-	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$12,000	
I	Determine Long-Term Single Ownership of TBI	11	16										100%	\$15,000	-	-	-	-	\$6,000	\$6,000	\$6,000	-	-	-	-	-	-	-	\$17,000	
J	Feasibility Study For Reducing Stormsewer Connections												100%	\$15,000	-	\$5,000	\$5,000	\$5,000	-	-	-	-	-	-	-	-	-	-	\$16,000	
K	Maplewood Landlocked Area Feasibility Study	5											50%	\$25,000	-	-	-	\$9,000	\$10,000	\$10,000	-	-	-	-	-	-	-	-	\$29,000	
L	TBI Subwatershed Studies	4	5	11									100%	\$150,000	-	\$51,000	\$53,000	\$55,000	-	-	-	-	-	-	-	-	-	-	\$159,000	
325	Wetland, Stream, and Ecosystem Restoration – Planning													\$685,000		\$129,000	\$133,000	\$137,000	\$116,000	\$120,000	\$123,000								\$757,000	
A	Green Corridor Restoration Strategy	17	19										100%	\$35,000	-	-	-	\$13,000	\$14,000	\$14,000	-	-	-	-	-	-	-	-	\$41,000	
B	Wetland Reestablishment Feasibility Study	20											100%	\$150,000	-	\$51,000	\$53,000	\$55,000	-	-	-	-	-	-	-	-	-	-	\$159,000	
C	Stream Corridor Restoration Feasibility Studies	17	20	1									100%	\$450,000	-	\$77,000	\$80,000	\$82,000	\$84,000	\$87,000	\$90,000	-	-	-	-	-	-	-	\$500,000	
D	Study of Railroad Lands for Wetland Reestablishment: Infiltration, Soils	4	11	17									100%	\$50,000	-	-	-	\$19,000	\$19,000	\$20,000	-	-	-	-	-	-	-	-	\$58,000	
330	Mississippi River Subwatershed													\$118,000		\$88,000	\$90,000	\$93,000	\$106,000	\$109,000	\$112,000	\$108,000	\$111,000	\$114,000	\$118,000	\$118,000	\$118,000	\$1,049,000		
A	[Project Initiatives]															\$27,000	\$27,000	\$28,000	\$29,000	\$30,000	\$31,000	\$32,000	\$33,000	\$34,000	\$35,000	\$36,000	\$36,000	\$313,000		
	Input on Central Corridor, Ford Plant, etc.																													
	Collaborate with U of M and State Fair																													
	Progress Building rain garden maintenance																													
	Participate on U of M Steering Committee																													
	Sheep Pasture basin observation																													
	Crosby Lake subwatershed projects																													
B	Large Scale Redevelopment Stormwater Management Planning	11	4	20									100%	-	\$25,000	\$26,000	\$27,000	\$27,000	\$28,000	\$29,000	\$30,000	\$31,000	\$32,000	\$33,000	\$34,000	\$34,000	\$34,000	\$295,000		
C	Perform Stormwater Audits and Provide Recommendations	11	4	9																										

(VALUES ROUNDED TO NEAREST 1000, SUMMATION VALUES MAY BE SLIGHTLY OFF DUE TO ROUNDING.)

Implementation Initiatives		Issues		Partners							CRWD Cost Share	One-Time CRWD Cost	Annual / Maint. CRWD Cost	COSTS										10-Year Total
				Non-Profit/Community Groups	Business/Landowners	Cities	School District	Ramsey City/RCD	WD / WMO	University/College				Agencies	2011	2012	2013	2014	2015	2016	2017	2018	2019	
Theme Key for Implementation Section:																								
	Bringing Water Back to St. Paul																							
	Partnership & Community Connections																							
	Innovation & Emerging																							
	Adaptive Management																							
	New Information Technology																							
401	Shoreline and Streambank Restoration																							
A	[Project Initiatives]																							
	Lake McCarrons Shoreline Restoration Project																							
	Como Lake Shoreline Restoration - with City of St. Paul																							
B	Mississippi River Streambank and Bluff Restoration	4	17		x	x			x	50%	\$100,000	\$10,000	\$45,000	\$46,000	\$47,000	\$11,000	\$12,000	\$12,000	\$12,000	\$13,000	\$13,000	\$13,000	\$224,000	
C	Loeb and Crosby Lakes Shoreline Restoration - Implementation	4	17		x	x			x	50%	\$100,000	\$10,000	\$45,000	\$46,000	\$47,000	\$11,000	\$12,000	\$12,000	\$12,000	\$13,000	\$13,000	\$13,000	\$224,000	
405	Como Lake Subwatershed BMPs																							
A	(Como 3) Orchard Center Underground Infiltration	4			x	x				50%	\$157,000	-	\$54,000	\$56,000	\$57,000	-	-	-	-	-	-	-	\$167,000	
B	(Como 3) Horton and Van Slyke Rain Garden	4				x				50%	\$10,000	-	\$4,000	\$4,000	\$4,000	-	-	-	-	-	-	-	\$11,000	
C	(Como 3) McMurray Field Re-Use Basin	4				x				50%	\$736,000	-	\$253,000	\$260,000	\$268,000	-	-	-	-	-	-	-	\$781,000	
D	(Como 3) Lake Como Pavilion Pervious Parking	4				x				50%	\$116,000	-	\$40,000	\$41,000	\$42,000	-	-	-	-	-	-	-	\$123,000	
E	(Como 3) Argyle and Van Slyke Rain Gardens	4				x				50%	\$43,000	-	\$15,000	\$15,000	\$16,000	-	-	-	-	-	-	-	\$46,000	
F	(Como 3) High School Pervious Parking	4					x			50%	\$163,000	-	\$56,000	\$58,000	\$59,000	-	-	-	-	-	-	-	\$173,000	
G	(Como 3) Bump-out Rain Gardens	4				x				50%	\$42,000	-	\$14,000	\$15,000	\$15,000	-	-	-	-	-	-	-	\$44,000	
H	(Como 3) Chatsworth/Como Underground Filtration	4				x				50%	\$197,000	-	\$68,000	\$70,000	\$72,000	-	-	-	-	-	-	-	\$209,000	
I	Como 2 Implementation Plan	4				x				50%	\$375,000	\$20,000	-	-	-	\$163,000	\$168,000	\$173,000	\$25,000	\$25,000	\$26,000	\$27,000	\$607,000	
J	Como 4 Implementation Plan	4				x				50%	\$475,000	\$25,000	-	-	-	\$206,000	\$213,000	\$219,000	\$31,000	\$32,000	\$33,000	\$34,000	\$766,000	
K	Como 5 Implementation Plan	4				x				50%	\$175,000	\$10,000	-	-	-	-	-	-	\$66,000	\$68,000	\$70,000	\$72,000	\$277,000	
L	Como 6 Implementation Plan	4				x				50%	\$175,000	\$10,000	-	-	-	-	-	-	\$66,000	\$68,000	\$70,000	\$72,000	\$277,000	
M	(Como 8) Install Gottfried's Pit Pump Upgrades	5				x		x		50%	\$150,000	-	-	-	-	\$56,000	\$58,000	\$60,000	-	-	-	-	\$174,000	
413	Lake McCarrons Subwatershed BMPs																							
A	(McCarrons 4) MndOT Pond Baffle Skimmer	4							x	50%	\$1,000	-	\$200	\$200	\$200	-	-	-	-	-	-	-	\$1,000	
B	(McCarrons 4) William Street Pond Retrofits	4	17		x	x				50%	\$15,000	-	\$5,000	\$5,000	\$6,000	-	-	-	-	-	-	-	\$16,000	
C	(McCarrons 4) Lakeshore Buffer Improvements	4	17		x	x				50%	\$33,000	-	\$11,000	\$11,000	\$12,000	-	-	-	-	-	-	-	\$34,000	
D	(McCarrons 4) Boulevard Hydrodynamic Separator	4				x				50%	\$24,000	-	\$8,000	\$9,000	\$9,000	-	-	-	-	-	-	-	\$26,000	
E	(McCarrons 4) Boat Launch - Pervious Pavement	4	1			x		x		50%	\$8,000	-	-	-	-	\$3,000	\$3,000	\$3,000	-	-	-	-	\$10,000	
F	(McCarrons 4) Boulevard Infiltration Trenches	4				x				50%	\$37,000	-	-	-	-	-	-	\$11,000	\$12,000	\$12,000	\$12,000	\$12,000	\$48,000	
G	Villa Park Performance Improvement Projects	4				x			x	50%	\$500,000	-	-	-	-	\$188,000	\$193,000	\$199,000	-	-	-	-	\$580,000	
415	Loeb Lake Subwatershed BMPs																							
A	(Loeb/Willow) Skimmer Structure	4				x				100%	\$10,000	-	\$3,000	\$4,000	\$4,000	-	-	-	-	-	-	-	\$11,000	
B	(Loeb/Willow) Stormwater Treatment Practices	4				x				100%	\$30,000	-	\$10,000	\$11,000	\$11,000	-	-	-	-	-	-	-	\$32,000	
C	(Loeb/Willow) Restoration	17	19	20	11	x	x			50%		\$25,000	\$26,000	\$27,000	\$27,000	\$28,000	\$29,000	\$30,000	\$31,000	\$32,000	\$33,000	\$34,000	\$295,000	
417	Crosby Lake Subwatershed BMPs																							
A	Crosby Lake Management Plan Implementation	4	17		x	x			x	100%	\$100,000	-	-	-	-	\$38,000	\$39,000	\$40,000	-	-	-	-	\$116,000	
420	Trout Brook Subwatershed BMPs																							
A	(TBI) Repair Work Sta. 0 - 19+93	5								100%	\$81,000	-	\$81,000	-	-	-	-	-	-	-	-	-	\$81,000	
B	(TBI) Repair Work Sta. 23+15 - 28+49	5								100%	\$22,000	-	\$22,000	-	-	-	-	-	-	-	-	-	\$22,000	
C	(TBI) Repair Work Sta. 28+49 - 32+33	5								100%	\$16,000	-	\$16,000	-	-	-	-	-	-	-	-	-	\$16,000	
D	(TBI) Repair Work Sta. 32+33 - 33+34	5								100%	\$4,000	-	\$4,000	-	-	-	-	-	-	-	-	-	\$4,000	
E	(TBI) Repair Work Sta. 33+62 - 59+45	5								100%	\$105,000	-	-	\$105,000	-	-	-	-	-	-	-	-	\$105,000	
F	(TBI) Repair Work Sta. 112+76 - 136+16	5								100%	\$95,000	-	-	\$95,000	-	-	-	-	-	-	-	-	\$95,000	
G	(TBI) Repair Work Sta. 136+16 - 168+73	5								100%	\$132,000	-	\$132,000	-	-	-	-	-	-	-	-	-	\$132,000	
H	(TBI) Repair Invert Sta. 185+82 - 186+94	5								100%	\$40,000	-	\$40,000	-	-	-	-	-	-	-	-	-	\$40,000	
I	(TBI) Repair Work (West Tunnel) Sta. 0+00 - 17+62	5								100%	\$70,000	-	\$70,000	-	-	-	-	-	-	-	-	-	\$70,000	
J	(TBI) Future Tunnel Repairs	5								100%	-	-	-	-	-	-	-	-	-	-	-	-	-	
K	(TBI) General Tunnel Maintenance	5								100%	\$300,000	-	-	-	\$150,000	-	-	-	-	-	\$150,000	-	\$300,000	
L	TBI Subwatershed Study Implementation	4	5			x	x		x	100%	\$200,000	-	-	-	-	\$75,000	\$77,000	\$80,000	-	-	-	-	\$232,000	
425	Wetland, Stream, and Ecosystem Restoration - Implementation																							
A	Corridor Restoration: Implementation	17	19		x	x	x			100%	-	\$20,000	-	-	-	-	-	\$25,000	\$25,000	\$26,000	\$27,000	\$27,000	\$103,000	
B	Stream Corridor Restoration - Implementation	20			x	x	x			100%	\$3,000,000	-	-	-	\$563,000	\$580,000	\$597,000	\$461,000	\$475,000	\$489,000	\$504,000	\$504,000	\$3,669,000	
C	Wetland Improvement	20	17		x	x	x	x		100%	-	\$30,000	\$31,000	\$32,000	\$33,000	\$34,000	\$35,000	\$36,000	\$37,000	\$38,000	\$39,000	\$40,000	\$354,000	
D	Wetland Reestablishment: Implementation	20	17		x	x	x	x		100%	\$300,000	-	\$103,000	\$106,000	\$109,000	-	-	-	-	-	-	-	-	\$318,000
E	Implementation of Railroad Land Restoration Projects	4	11	17		x				100%	\$200,000	-	-	-	-	-	-	-	\$61,000	\$63,000	\$65,000	\$67,000	\$257,000	
430	Mississippi River Subwatershed BMPs																							
A	East Kittsondale Contamination Mitigation: Implementation	4				x	x			100%	\$200,000	-	-	-	-	\$75,000	\$77,000	\$80,000	-	-	-	-	\$232,000	
435	Stormwater Impact Fund Implementation																							
A	Volume Reduction BMP Implementation	4	17		x	x	x		x	100%	\$140,000	-	-	-	\$53,000	\$54,000	\$56,000	-	-	-	-	-	\$162,000	
440	Special Projects and Grants																							
A	[Project Initiatives]																							
	Implement Special Grant program, protocols, and guidance.																							
	Award grants for WQ, leveraged funding, partnerships																							
	Work with partners to implement water quality practices																							
B	Stormwater Reuse Demonstration	9			x	x				100%	\$80,000	-	\$27,000	\$28,000	\$29,000	-	-	-	-	-	-	-	\$85,000	
450	Future Trends: Implementation																							
A	CRWD Green Office Building/Campus	13	9	1		x				100%	\$2,500,000	\$10,000	-	-	-	\$949,000	\$978,000	\$1,007,000	\$12,000	\$13,000	\$13,000	\$13,000	\$2,985,000	
490	Debt Service																							

