

<i>Issue Category</i>	<i>Issue</i>	<i>ID Source</i>	<i>Goals</i>	<i>Implementation Indicators</i>	<i>Implementation Programs</i>	<i>Status</i>
Flooding						
Flood Damage Reduction and Mitigation			Minimize existing and future potential damage to property, public safety, and water resources due to flood events.			
	Wilmes Flooding	Woodbury, Past WMPs, Met Council		No increase in Wilmes HWL from development	Implementation & Maintenance, Regulatory	Flood-proofing program complete, regulatory ongoing
	ID and protect key flood storage	2007 WMP		Complete/Update inventory within 3 years; no net loss	Planning, Information, Regulatory	ID complete in SWW, still needed in EM and LSC regulatory ongoing
	Flooding Emergency Response Plan	2007 WMP		Complete within 6 years	Planning	Not Started
	ID critical inter-community flow crossings, set max rates, assess existing flow rates + enforcement	2007 WMP		Review/update within 3 years; implement necessary reductions with development	Planning, Information, Regulatory	ID complete; regulatory ongoing
	Mississippi River Flood Damage Reduction/Mitigation	Washington County, Municipalities		Maintain programmatic flexibility to respond if necessary	Planning, Implementation & Maintenance	Ongoing
	Clear Channel Pond Construction	2007 WMP, St Paul Park, Cottage Grove, MnDOT		Implement remaining portions of project as site develops	Implementation & Maintenance	Stalled
	O'Connors Lake Levels/Flooding	LSCWMO		Maintain current HWL	Planning, Regulatory	Ongoing
Overflow		Municipalities, past WMPs, Guidance Docs, Washington County, Met Council	Operational by 2020	Phase III complete by 2017; Phase IV complete by 2018; Phase V complete by 1/1/2020	Planning, Implementation & Maintenance	Phase II of V in construction
Watershed Alterations						
Surface water degradation and impairment			Protection and restoration of District resources to meet local resource goals and State standards			
	Impairment Source ID	2007 WMP		Complete management plan for all lakes/streams within 6 years; re-assess plans completed plans every 3 years to adjust strategy	Planning	Complete for waters fully within District; pending TMDLs for Big Rivers
	Protection of Resources	2007 WMP		Complete management plan for all lakes/streams within 6 years; re-assess plans completed plans every 3 years to adjust strategy; prevent new impairment listings	Planning, Regulatory, Implementation & Maintenance	Ongoing
	Restoration of Resources	2007 WMP; Met Council; MnDNR		Achieve identified watershed load reductions from completed management	Planning, Regulatory, Implementation & Maintenance	Ongoing

				plans; Continue various implementation programs; ultimately de-list; Coordinate CIP with Cities through TAC		
	Protect high quality wetlands	2007 WMP; BWSR/WCA		No net loss in acreage or functions	Regulatory	ID complete, no efforts yet specific to protection
	Maintain WQ in landlocked basins	2007 WMP; LSCWMO		No new impairments (incl Powers, La, and OConnors)	Regulatory, Implementation & Maintenance	Ongoing
	Regional TMDLs (Big Rivers)	2007 WMP, MPCA		Consider adoption of completed TMDLs for Statewide and Regional resources for which actions are identified for SWWD	Planning, Regulatory, Implementation & Maintenance	Participation in development ongoing, none finalized
	Trout Brook Remeander	LSCWMO, 2007 WMO, TB Mgmt Plan; MnDNR		Move to work plan		30% design complete, fundraising
	Trout Brook Riparian Restoration	LSCWMO, 2007 WMO, TB Mgmt Plan		Move to work plan		Ongoing
	Trout Brook Watershed Restoration	LSCWMO, 2007 WMO, TB Mgmt Plan		Move to work plan		Ongoing
	Grey Cloud Flow Restoration	2007 WMP, DNR, NPS, USFWS, USACE, GCIT		Move to work plan		Ready for final design
	Lions Park Retrofit, St Paul Park	St. Paul Park		Move to work plan		Not started
	Agriculture—little regulation, impacts from water use, fertilizer migration to ground and surface water, soil loss, etc	CAC		Develop incentive program for BMP implementation on ag lands within 3 years; Identify willing landowners and begin pilot ag BMP research program within 6 years	Planning, Implementation & Maintenance	Not Started
	Chlorides	TAC		Implement actions from Metro Chloride TMDL; Continue incentives to improve de-icing operations; Implement educational efforts to reduce salt use on private property	Planning, Implementation & Maintenance	Ongoing
	Emerging Contaminants	TAC		Evaluate impact of emerging contaminants and identify District programs or actions to control or mitigate risk	Planning, Implementation & Maintenance	Not Started
Bluff, Streambank, and Shoreland Erosion						
	State Buffer Initiative—WDs to Enforce	MnDNR		Develop reg measures to comply with State Reqs	Regulatory	New
	Bluff and Ravine erosion	LSCWMO, 2007 WMP; MnDNR; CAC		Establish and maintain 50' buffer on all bluffs, ravines, lakes, and	Planning, Regulatory, Implementation & Maintenance	Bluff rule in place needs to be expanded, no proactive efforts to date

				streams; ID excessively eroding features within 3 years; Stabilize within 10 years		
	Ravine Park East Tributary Stabilization	Met Council		None. Should be addressed by Washington Co Park master plan	Washington County actions likely eligible for SWWD assistance through incentive programs	New
GW Sustainability						
Supply (mining and conservation)			Implement conservation efforts to ensure long term viability of groundwater resources in South Washington County.			
	ID and preserve optimal infiltration areas	2007 WMP; WashCo; MnDNR				Complete
	Assess temporal significance of recharge	2007 WMP, WashCo; MnDNR				Complete
	Implement actions identified in regional planning efforts	MnDNR, WashCo		Implement local action items	Planning, Implementation & Maintenance	Not Started
	Promote sustainable withdrawals to prevent groundwater mining	2007 WMP, WashCo, Met Council, MnDNR		Needs to MnDNR or WashCo lead. Will assist if needed		Not Started
	Permitting small users (Potential role of WDs)	MnDNR, WashCo		WD role?		Authority not currently used by SWWD
	Promote conservation	WashCo, MnDNR		Incentivize practices that reduce water demand on aquifers	Planning, Implementation & Maintenance	Ongoing
Protection			Prevent impacts to groundwater from District projects and public operations.			
	ID/Inventory Karst Features	2007 WMP, LSCWMO		Continue enforcement of existing Karst rules	Regulatory	Ongoing
	Prevent Pollution	WashCo; MDH; Municipalities		Consider of pollution potential in siting and design of BMPs; Continue to work with agencies to improve de-icing operations	Planning, Implementation & Maintenance	Ongoing
	Lake Elmo/Oakdale Special Well Construction Area	MDH, DNR, 2007 WMP		Use alternative compliance for infiltration	Planning, Regulatory	Ongoing
	SW/GW Interactions	WashCo; Met Council		Work with partners to assess risk to groundwater resources from known interactions (and vice versa); Implement increased protections where appropriate	Planning	ID Complete—WashCo; What to do with it?
	Research: Regional Infiltration, Impacts to streams from withdrawals	WashCo; MDH; MPCA		Continue work with partners to assess potential impacts	Planning	Ongoing

				(positive and negative) of regional infiltration at CDSF on groundwater; Work with DNR and WashCo to identify resource risks from additional groundwater appropriation		
Natural Resources						
Habitat			Protect, restore, and reconstruct native terrestrial and aquatic habitat for the benefit of resource management.			
	Aquatic Invasive Species	MnDNR; WashCo		Participate in development of regional programs prevention and control	Planning	Not Started
	Terrestrial Invasives (i.e. buckthorn)	MnDNR		Participate in development of regional programs prevention and control	Planning	Not Started
	Protect rare species	MnDNR		Avoid impacts from District funded projects	Implementation & Maintenance	Not started
	Implement in-Lake Management	SWWD Lake Mgmt Plans; MnDNR		Survey aquatic veg every 3 years; implement actions in adopted management plans	Planning, Implementation & Maintenance	Ongoing
	Protect and Restore high quality habitats	2007 WMP		Avoid impacts from District funded projects	Regulatory (buffers), Implementation & Maintenance	Ongoing
	ID areas with potential for protection, restoration, or that could be incorporated into state wildlife areas	2007 WMP		ID within 6 years, incorporate into greenway plan where feasible	Planning	Not Started
	Avoid encroachment of development on high quality habitats	2007 WMP, WashCo		Avoid impacts from District funded projects	Regulatory (buffers), Implementation & Maintenance	Not started
	Promote use of site appropriate plants	MnDNR		Promote use of site appropriate plants on District funded projects	Implementation & Maintenance	Ongoing (district projects)
	Pollinators	CAC		Promote compliance with guidance for pollinator friendly design practices as part of District funded projects; Consider preservation and restoration of native habitat and benefits to pollinators in allocating incentive funding.	Implementation & Maintenance	Not Started
	Promote establishment of grassland over turf	MnDNR		Develop credit mechanism to	Regulatory	Ongoing

				incentivize native cover over turf within 6 years.		
	Help minimize conversion of native forestland	MnDNR		Develop credit mechanism to incentivize preservation of mature trees during development within 6 years.	Regulatory	Not started
	Tree Inventory	MnDNR		N/A	N/A	Municipal Role
	Greenway ID and Implementation—preserve and connect open spaces necessary for conveyance of water and protection of water quality	2003 & 2007 WMP; MnDNR		Implement incentives program and buffer regs to established planned greenway	Planning, Regulatory, Implementation & Maintenance	CDO portions complete, rest not started
Climate Change						
Adaptive Management			Facilitate increasing resilience of District resources and public infrastructure through development of information and strategies and implementation of accepted climate adaptation practices			
	Assess and manage risks of changing climate			Assess adaptive capacity of District resources and systems in developing projects; require use of up to date hydrologic data for meeting District standards	Planning, Regulatory	Ongoing (regs)
	Work with Cities to plan for changing climate and implement improvements to increase resilience	CAC		Utilize District models and predicted scenarios to identify infrastructure vulnerabilities within 6 years; Utilize CCIP to assist Cities in increasing system resiliency	Planning, Implementation & Maintenance	Ongoing
	Assess changing risks to groundwater—quantity and quality—from changing climate (increased demand, changing interactions with surface water)	CAC		Utilize District and County models to evaluate potential changes in Surface water/groundwater interactions dynamics; Promote use of alternative landscapes which require less water; promote water re-use where feasible to reduce aquifer demand	Planning, Implementation & Maintenance	Not started
Information						
Resource Assessment			Operate a monitoring program adequate to establish baseline conditions and identify long term trends; Operate a program			

			adequate to detect changes in loading rates as a result of District implementation			
	Operate Groundwater Monitoring Program	MnDNR; WashCo		Continue current GW monitoring efforts, work with partners to expand as appropriate	Implementation & Maintenance	Ongoing
	Operate Surface Water Monitoring Program	WMPs, Rule 8410		Implement SWWD Monitoring Plan	Implementation & Maintenance	Ongoing
Modeling			Maintain updated, District-wide hydrological modeling to inform District and Municipal management of resources and infrastructure			
	District-wide hydrologic model	WMP		Complete within 6 years, annually update to reflect development; calibrate to monitoring data every 3 years	Planning	Ongoing
	Standard modeling specifications	WMP		Complete within 3 years	Planning	Ongoing
Research			Manage the Watershed and its resources using the best known practices and strategies			
	Pursue/support efforts to inform and improve management efforts of the District and its partners	Staff		ID and refine research and information needs as ongoing role of TAC; Pursue opportunities to provide for identified needs; annually publish summary of completed and ongoing efforts as part of annual report	Planning, Education & Information	Not Started
Efficiency and Accountability						
Results Based Accountability			Utilize a Results Based Accountability approach in evaluating and refining implementation strategies for achieving resource goals and to evaluate program performance			
	RBA	Washington County		Ongoing development and use of documented strategies and actions to achieve established resource goals; Incorporate strategy documentation, progress evaluation, and annual workplan into annual report; amend watershed plan as necessary to provide the	Planning	New

				District with programs and tools necessary to implement identified strategies		
	Progress Evaluation	2007 WMP; MN Rule 8410; PRAP	?	Biennially evaluate District progress in achieving identified issue goals.	Planning	Ongoing
Uniform Standards			Establish and maintain District controls necessary to achieve established District resource goals, comply with mandated permits and programs, and maximize regulatory consistency with neighboring jurisdictions			
	Uniform standards across Municipalities	2007 WMP		Municipal adoption/compliance with District Rules within 2 years of adoption	Planning, Regulatory	Ongoing, recent rule update
	Compliance with State permits	State agencies; 2007 WMP		Regularly update District Rules to keep pace with changing resource issues and mandated regulatory programs (MS4, NPDES)	Planning	Ongoing, recent rule update
	Uniform standards across WD boundaries	WDs; Municipalities; MN Rule 8410		Work with Washington County Consortium and neighboring WDs to ID and implement consistency where possible.	Planning	Should be revisited, ongoing/sporadic effort at consortium level
	Support Low Impact Development	MnDNR		Prevent degradation and promote enhancement of Water Quality of District resources—statistical evaluation of WQ trends.	Regulatory	Ongoing
	Erosion & Sediment Control Enforcement	MPCA		Ensure compliance across full District jurisdiction using cooperative/coordinated approach that limits duplication of efforts.	Planning, Regulatory	Ongoing
Collaboration/ Cooperation			Limit duplication of planning and implementation efforts by the District and its State and Local partners; Create efficiencies in implementation through increased partnership and coordination of CIP			
	Improve Collaboration and Information Sharing	WashCo; MnDNR; BWSR; MPCA; Met Council		Collaborate and coordinate agency efforts through TAC;	Planning	Ongoing

				Incorporate local input through CAC; Participate in State and Regional advisory committees; combine local implementation efforts to gain economy of scale		
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