

WMP Code	WMP Page #	CIP Item	Planned Actions or Activities	Proposed Timeframe	Actual Timeframe	Accomplishments to Date	Progress Rating	Next Steps
<b>3001</b>		<b>District Rules and Rulemaking</b>						
3001A	27-28	Ongoing Initiatives	Annual review of City ordinances and related plans.	Annual	Ongoing	Performed initial review of Minimal Impact Design Standards (MIDS) compared to District Rules and local municipality ordinances. Performed initial comparison/analysis of other watershed district shoreline alteration and erosion control rules.		Perform more in-depth comparison and analysis of how MIDS can be incorporated into District Rules along with other rule revisions as necessary (e.g. changing applicability thresholds to increase permit occurrence)
3001B	27-28	Rule Implementation Review	Development of biofiltration document	Every other year	2016	Conducted MIDS background work and presented options for rule revisions.		Work on rules revisions in 2017.
<b>3002</b>		<b>Permitting</b>						
3002A	28-29	Ongoing Initiatives	1. Staff review of permit applications to ensure applicants site plans comply with District Rules	Annual	Ongoing	14 Permits issued in 2015. 14 permit applications received in 2016 as of 6/22/16. Staff regularly continues to regular communicate and/or meet with City of Forest		Develop/improve regulatory relationship with other municipalities within the District (Scandia, Chisago Lakes Township) in order to increase compliance with District Rules.
	28-29		2. Conduct inspections prior to soil disturbance, during construction activities and after site stabilization to ensure construction activities meet	Annual	Ongoing	Continued to perform regular site inspections. Provided site mgmt guidance to builders/homeowners to help them achieve compliance, no enforcement action taken		
	28-29		3. Ongoing tracking of aspects of the permitting program such as frequency of inspections, need for enforcement actions, compliance with BMP	Annual	Ongoing	Maintained tools to track permit activities such as site inspections, maintenance agreements, and finances		Continue to improve efficiency, effectiveness and consistency of program by utilizing tracking tools and communicating with other organizations.
3002B	28-29	Volume Banking Program Oversight	No volume banking established to date.	Annual	NA	No volume banking established to date.		Evaluate options for volume banking and communicate to LGU's that this is an option.
<b>3003</b>		<b>Monitoring &amp; Data Assessment</b>						
3003A	30	Ongoing Initiatives	Conduct water resource monitoring and complete evaluations of the collected data. Conduct regular in-lake, in-stream and discharge monitoring on priority waterbodies and watercourses. Compile data and evaluation into yearly report.	Annual	Annual	Completed 2015 monitoring data collection and report compilation. Began 2016 data collection.		Complete 2016 data collection and summary report.
3003B	31	Develop Monitoring Plan	Conduct review and potential update to long term monitoring plan.	2012	2017	Original Plan Completed in 2011		Revisit Monitoring Plan and make recommended changes based on recent diagnostic studies.
3003C	31	Comprehensive Data Analysis	Conduct data analysis.	Every 3 years	2017	Obtained Board consensus to explore 3-year comprehensive water monitoring data analysis to analyze trends.		Return to Board with recommendation for specific plan/costs for implementing comprehensive data analysis.
3003D	31	Bone - Birch Tributary and Wetland Monitoring	Part of larger Bone to Birch to School to Little Comfort Lake diagnostic study.	2012-2013	2016	See line item 5225A		Use diagnostic study results to evaluate need for 2nd year of targeted monitoring based on initial 2016 monitoring results.
3003E	31	Birch - School - Little Comfort Lake Tributary Monitoring	Part of larger Bone to Birch to School to Little Comfort Lake diagnostic study.	2012-2013	2016	See line item 5225A		Use diagnostic study results to evaluate need for 2nd year of targeted monitoring based on initial 2016 monitoring results.
3003F	31	Forest Lake Subwatershed Wetland Outlet Monitoring (FL44 Subwatershed)	TBD	2012-2013		Completed		Review subwatershed as part of FL diagnostic study and FL North Shore Subwatershed Analysis.
3003G	31-32	Stream Biotic Monitoring	Conduct periodic biotic monitoring of District streams to evaluate stream health. Biotic monitoring will be conducted on the Sunrise and on	2015, 2020	September 2015 & May 2016	Board of Managers approved scope of work for stream biotic monitoring on 5 stream reaches (1 on Sunrise, 4 on BBSLC Tributary).		September 2015 macroinvertebrate and fish survey with summary technical memo.
3003H	32	Wetland Monitoring	TBD	Periodic		Reviewed wetland impacts as brought up by the LGU and citizens to date.		Increase communication with LGUs on wetland impacts. Potential partnership with City of FL on investigating wetland complaints and impacts.
3003I	32	Bone Lake Subwatershed Phosphorus Monitoring (NBL 17 subwatershed)	TBD	2011		Completed		Evaluate subwatershed for potential targeted monitoring as part of ongoing adaptive management strategy.

3003J	32	Bone Lake Subwatershed Phosphorus Monitoring (NBL 38 subwatershed)	TBD	2012		Completed		Evaluate subwatershed for potential targeted monitoring as part of ongoing adaptive management strategy.
<b>3004</b>		<b>Non-Point Source Pollution Abatement Grant (cost-share)</b>						
3004B	33	Residential Landowner Grant	Cost share program for residential project to improve on-site stormwater mgmt and/or improve the condition of the shoreline or streambank	Annual	Annual	Changed funding structure from 2015. Initiated new plant grant program for 100% cost-share of smaller planting projects. Conducted 14 site visits for interested		Continue to perform site visits and follow-up inspections for projects until grant funding runs out.
3004C	34	Agricultural and Rural BMP Incentives/Cost-Share	Cost-share program to prevent or minimize water quality degradation by controlling sediment, runoff velocity levels, and the amount of fertilizer,	Annual	Ongoing	Conducted cropland field transect survey to assess potential erosion rates. Held several meetings with SWCD to coordinate planned grid soil sampling cost-		Coordinate grid sampling of cropland acres and program framework.
3004D	34	Commercial/Community Grant	Cost-share for commercial, multi-family residential and non-profit properties to improve water quality	Annual	Ongoing	Currently funded.		Conduct more outreach regarding this program.
3004E	34	Municipal Stormwater Remediation Program	For projects on municipal property and right-of-ways to incorporate features that address stormwater mgmt in areas without adequate	Annual	Ongoing	Had several meetings/communications with City of Forest Lake regarding increased/enhanced street sweeping. Applied for grant to fund additional research		Conduct additional research per grant work plan. Continue to communicate with City of Forest Lake. Apply for grant to fund equipment purchase/staff wages.
<b>3005</b>		<b>Education and Outreach</b>						
3005A	36	Ongoing initiatives / EMWREP participation	Per EMWREP Plan	Annual	Ongoing	Increased communications with lake associations. Increased amount of press releases and communication of District activities. Updated District website to improve navigation and appearance. Initiated social media participation (Facebook, Instagram, Twitter). Began		Complete comprehensive education and outreach work plan with input from EMWREP. Continue to improve District website usability and appearance and maintain information for the public.
3005B	36	Summer Intern at Boat Launches (Inspections Program)	Provide enthusiastic, engaged and knowledgeable summer staff at boat launches to offer education and supervision of actions to limit the spread of AIS	Annual	Annual	Re-hired inspectors from 2015 to work in 2016. Continued to partner with Chisago County to manage program. Chisago County purchased mobile		Compile inspection hours and survey data throughout season and create report at the end of the season.
3005C	37	Standard Project Signage	Increase local awareness of the District, the watershed and its resources using a unified series of signage themes for standard District initiatives and	2012, 2021	Potential 2016	Placed on 2nd tier funding list in 2016 budget.		
3005D	37	Local student engagement/Chisago Co Children's Water Festival	Work to engage local students and their teachers through participation in District activities and through interactive exhibits	Annual	Annual	In 2016 participated in Forest Lake High School's FFA day and the City of Forest Lake's Lakefest to reach out to and educate community members. District budgeted to		Attend Chisago County Children's Water Festival. Continue to seek opportunities for local student engagement.
<b>3006</b>		<b>Technical Resource Sharing + Interagency Communication</b>						
3006A		Ongoing Initiatives (Miscellaneous Projects)		Annual				
3006B	38	Provide Comment on Municipal Variance Requests	Work with municipalities to ensure that the District receives notice and is aware of variance requests from Municipal Ordinances that may have a direct	Annual	Ongoing	District staff meets regularly with City of Forest Lake staff to discuss project coordination and development review		Enhance communications with other LGUs in the WD so as to establish regular coordination meets with them as well.
3006C	39	Modeling (H&H Model Update)	Periodically update the hydrologic/hydraulic model to reflect current watershed conditions	Annual	2016-2017	\$25,000 in 2016 budget for this activity but not likely to start until partnership with City of FL is established.		Work with City of Forest Lake to budget for 2017 joint effort to obtain necessary field information so as to greatly improve modeling and thus prioritization of projects.
3006D	39	Geographic Information Systems (GIS)	Establish and maintain a mapping database of District projects, BMP grant projects and permit sites as well as other supporting information	Annual	Ongoing	Limited GIS layers reside with EOR.		Obtain GIS software so staff can create and maintain GIS related information pertinent to the WD as necessary.
3006E	39	District Web Mapper (& WCD BMP/Permit project)	Develop a map viewer interface to view relevant information about the District's resources, landscape and activities	2011	Ongoing	Web mapper in place and updates included.		Continue updates
3006F	39	Watershed Management Plan Update	\$10,000 in 2016 budget to start this activity in 4th Qtr of 2016. Make further edits to WMP in 2017.	2019-2021	2016-2017	Amended 2012-2021 WMP to add project 5900 - Land Acquisition and Management.		Continue comprehensive WMP update in 2017.
<b>3007</b>		<b>Research</b>						

3007A	40	Ongoing Initiatives	Stay up to date on current and future trends in water resource management and evaluation.	Annual	Annual	Continue to attend conferences, review literature, etc. and reach out to companies developing emerging technology that could be used in water resources mgmt.	Consider strategic monitoring to evaluate performance of installed practices. Pursue opportunities to research new AIS treatment methods such as biological controls. Invite researchers to consider testing theories and devices within the CLFLWD.
		New Initiatives	Deep sediment core analysis of District Lakes so as to determine pre-development lake conditions.	Annual	2016-2019	Worked with St. Thomas University and St. Croix Watershed Research Station to take deep sediment cores on Comfort Lake, Shields Lake and Moody Lake.	Complete analysis of collected cores. Consider budgeting for and collecting cores on Forest Lake, Bone Lake and Little Comfort Lake.
3007B		New Initiatives	Research water re-use within the District as well as other potential innovative stormwater devices or practices.	Annual	Ongoing	Discussions with City of Forest Lake and Forest Hills Golf Course suggest that opportunities may exist for stormwater re-use.	Conduct field survey and baseline engineering work so as to evaluate City owned golf course and Forest Hills Golf Course for potential stormwater re-use opportunities.
<b>3008 Measurement of Progress</b>							
3008A	41	Ongoing Initiatives	1. Annual Report: catalog and evaluate the activities and initiatives of the District each year and assess the effectiveness of those initiatives in the short term through targeted monitoring or other evaluations and asses longer term trends in water quality to determine progress toward District goals and the need for changes to the planned efforts outline in the adaptive management strategy	Annual	Annual	Compiled preliminary data for progress evaluation metrics including: number of board meetings/workshops per year, number of permits, number of site inspections, permit deposits and reimbursements, number of cost-share site visits and projects, number of grants applied for/awarded, total grant dollars awarded.	Update progress eval metrics data per Board comments. Create graphical display to show CIP implementation compared to yearly water quality measurements. Consider creating additional metrics as appropriate. Continue to update PRAP Progress Evaluation Table and utilize during 2017 budgeting process.
<b>3009 (New) Grant Research and Preparation</b>							
3009A		Ongoing Initiatives	Apply for grants to increase funding for programs and projects.	Annual	Annual	Applied for 12 grants, and contributed to two joint-application grants with other organizations in 2016 as of 6/22/16. 2016 grant request total =~1.4 million. Granting agencies include BWSR, PCA, DNR, LCCMR, SCRA and Washington County.	Prepare for 2017 grant applications for projects including: Shields Lake fish barrier retrofit, Sylvan Lake groundwater protection, Bone Lake agricultural BMPs and infiltration basin, Wetland restoration inventory, street sweeping enhancements in City of Forest Lake, Forest Lake south subwatershed stormwater BMPs, ongoing AIS grants, and other grants as they may arise.
<b>3010 Operation &amp; Maintenance - District Wide</b>							
3010A		Ongoing Initiatives	Perform regular maintenance activities on District BMPs and facilities including: Shields Lake electric fish barrier, Bone Lake mechanical fish barrier, Forest Lake dam, Judicial Ditch 6 (once incorporated into CLFLWD after boundary change), installed BMPs (e.g. raingardens, shoreline restorations etc.), and District vehicle (2016 purchase)	Annual	Annual	Completed Bone Lake fish barriers operations manual with input from Bone Lake Association, operated Moody Lake aeration system during winter months in 2016, inspected Shields Lake electric fish barrier for potential upgrades, Conservation Corps of MN performed weeding and maintenance on dead end street raingardens around Forest Lake.	Continue the development of Operations and Maintenance Plans for each District owned project as appropriate. Develop cumulative "maintenance plan" and associated binder of O&M plans. Continue investigation of JD 6 for maintenance requirements and other acquisition considerations.



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5100		<b>Floodplain</b>						
5140A	42	Sunrise River Water Quality/Quantity Regional Stormwater Project	No budget was allocated under this line item. This line item refers to projects under 5229.	2012-2016		N/A		N/A
5200		<b>Lakes</b>						
		District-wide Zebra Mussel Monitoring	Install and monitor zebra mussel detection/sampler plates in Forest Lake, Bone Lake, Comfort Lake, Little Comfort Lake, Shields Lake, and Sylvan Lake by June 2015. Samplers to be monitored by a combination of District staff and volunteers.	2016 (new item)	Ongoing	Increased public awareness of zebra mussels and CLFLWD AIS efforts and goals, put system in place for early detection of new infestations. Monitor zebra mussel population size and distribution in Forest Lake.		Continue to monitor sampler plates for mussel growth. Collect plates late September-early October for winter storage/cleaning. Collect zebra mussel growth data from plates on Forest Lake and compile summary. Re-distribute after ice out in 2017.
		District-wide Boat Launch Site Upgrades	Improve AIS awareness and ease of inspections at Forest Lake, Bone Lake and Comfort Lake public launches by implementing boat launch improvements as identified in 2015 boat launch feasibility study.	2016 (new item)	Ongoing	Constructed wooden compost bins and installed at 5 public accesses within the District. Contracted with SRC garbage disposal for garbage and recycle bin services at all 5 accesses. Began preparations with DNR and WCD to implement "Clean In Clean Out" pavement stencils. Met with consultants to discuss design and feasibility of implementing innovative stationary decontamination units at public launches.		Implement "Clean In Clean Out" pavement stencils. Continue to assess feasibility and design for stationary decontamination stations at public accesses.
		District-wide Lake Shoreline Inventory Tech Evaluation	Use GPS camera technology to inventory lake shorelines. Reference database to enforce city ordinances.	2016 (new item)	Ongoing	Used GPS camera to inventory Forest Lake shoreline in fall 2015.		Develop schedule for ongoing shoreline inventories for all District lakes regardless of size. Initiate next inventory per schedule. Likely tied to development of individual "lake reports".
		District-wide Invasive Species Policy Development & Mgmt Plan	Develop a formal policy and management plan for District AIS activities.	2016 (new item)	2016-2017	Met with St. Croix River Association AIS Workgroup and provided input on SCRA AIS Strategic Plan and Implementation Table. Plan is largely complete with few minor additions/edits still in progress.		Continue to attend regular SCRA AIS Workgroup meetings. Utilize SCRA plan to guide District management plan development.
5220A	43	Volume Control Facility Planning & Design	Evaluate volume control facility sites and feasibility through a needs-based assessment of subwatersheds throughout the District.	2018	2017-2018	Initiated preliminary discussions with City of Forest Lake regarding completion of full MS4 inventory data needed to conduct assessment.		Conduct initial assessment of sites that may be suitable for volume control.
5220B	43	Volume Control Facility Implementation	2. (CIP) Volume Control Facility Implementation:	2019	2019-2021	N/A		N/A
5220C	43	Invasive Species Control Pilot Projects	Lead or partner on pilot projects and studies needed to control and minimize the entry of invasive species into District lakes.	2017	May be considered in 2017 if opportunity is appropriate.	Contacted researchers from Hamline University, the University of Minnesota, and the University of Minnesota - Duluth and expressed District interest in supporting AIS research on local lakes.		Continue to evaluate opportunities for pilot project.
5220D	43	Chemical Treatment of Inflows	Treat lake inflow with chemicals that bind to phosphorus, causing it to settle out and be collected	unscheduled	As opportunity arises	Conducted simple evaluation this option at 3rd Lake Pond project site but deemed not the best option.		Continue to evaluate opportunities for such a project.
5221A	44	(Moody) Moody Lake Inlet Fish Barrier	Install a rough fish barrier at the inlet to Moody Lake to limit the movement of rough fish into habitat areas in the wetland north of Moody Lake.	2011	fish barrier constructed.	The Moody Inlet Barrier was assessed at the same time as the Bone Lake Fish Barriers. At that time it was determined via discussions with DNR that the Bone Lake Barriers were a priority to keep carp out of Moody and Bone Lakes (be preventing migration between the lakes). The Moody Lake Inlet Barrier could be revisited in the future if needed.		Fish population surveys will be conducted in 2016 to determine current rough fish populations
5221B	44	(Moody) Curly-Leaf Pondweed Management	Manage CLP in Moody Lake to reduce the internal phosphorus load	Annual	DNR will allow once external load is reduced.	CLP herbicide treatment not currently allowed by DNR due to Moody being a Natural Environment Lake (among other reasons).		Reduce external P loading to lake before pursuing CLP treatment. Treatment planned after external load addressed per DNR guidance.

5221C	44	(Moody) Alum Treatment [and other P reducing BMPs]	Conduct alum or other in-lake treatment to reduce the internal load of P to Moody Lake	2011	2014-2016	Higher priority BMPs for P-removal in watershed detailed under 5421 (Moody) Wetlands. Alum treatment will be considered after other BMPs are implemented within the watershed.		Will move forward after implementation of other BMPs if necessary.
5221D	44	(Moody) Rough Fish Management	Remove rough fish to limit resuspension of lake bottom materials and reduce internal P load in Moody Lake	Every other year	2015-2016	St. Mary's University performed fish surveys and carp population estimates late summer 2015.		A commercial fisherman is tentatively planned to conduct a carp harvest in early 2016..
5221E	44	(Moody) Macrophyte & Invasives Survey	A survey of aquatic macrophytes will be conducted periodically on Moody Lake to track the balance of aquatic vegetation	Every 5 years, Annual	Every 5 years, Annual	The District contracts with Blue Water Science to conduct surveys and delineations as well as create AIS action plans.		Continue working relationship with Blue Water Science to perform surveys and delineations and generate reports.
5222A	45	(Bone) Bone Lake Inlet and Outlet Fish Barriers	Install fish barriers at the inlet and outlet of Bone Lake to limit the movement of rough fish into and out of the lake and limit their ability to access wetland spawning habitats.	2012	2012-2016	Inlet and outlet fish barriers have been installed and retrofitted to incorporate design improvements that are expected to better handle high flow conditions and reduce clogging and turtle mortality. District intern performs regular inspections to monitor clogging		<u>Continue to monitor fish barrier and determine effectiveness of retrofits. Fish barriers are operated and maintained under budget line item 3010 - Operation and Maintenance.</u>
5222B	45	(Bone) Bone Lake Infiltration Basin Planning and Design (SBL07)	Plan and design an infiltration basin to provide volume reduction and water quality improvement for drainage through subwatershed SBL07.	2012	2012-2014	A diagnostic study was conducted to determine P loading hot spots and identify potential BMPs for P removal.		Move to implementation scoping phase.
5222C	45	(Bone) Bone Lake Infiltration Basin Implementation (SBL07)	Construct an infiltration basin to provide volume reduction and water quality improvement for drainage through SBL07	2013	2015-2016	Initial CWF grant application to BWSR was denied in 2015, due to higher priority projects occurring upstream. Looking to re-apply in 2016 for next grant cycle.		Scope feasibility of BMP implementation. Agricultural BMPs (e.g. conservation tillage), infiltration basin high priority. Wetland enhancements if necessary after high priority BMPs implemented.
5222D	45	(Bone) Shoreline Survey	Conduct a shoreline survey to identify areas for improvements in shoreline buffers and lakescaping and to provide a means for documentation of changes in shoreline condition.	2014	2014	Completed photo inventory of shoreline.		Work with the City of Scandia to consider revising their shoreland and tree ordinances to align with DNR regulations and District goals.
5222E		(Bone) AIS Management - updated from CLP Management	Manage CLP in Bone Lake to reduce internal P load. Manage EWM for recreational benefits	Annual	Annual	CLP went untreated in 2016 due to low levels of growth in early spring. Delineations of EWM occurring throughout spring/early summer. Treatment forthcoming.		Late season CLP growth pattern was identified over past two years and will be considered in future management strategies. Treat areas of heavy EWM growth in summer 2016.
5222G	45	(Bone) Alum Treatment	Conduct alum or other in-lake treatment to reduce internal P load.	2013	TBD	The District has decided to address upstream P sources prior to conducting in lake treatment. A diagnostic study has been completed identifying several watershed projects. A BWSR CWF grant was applied for in 2015 to request funding for these projects.		Implementation of watershed projects prior to in-lake treatment.
5222H	45-46	(Bone) Macrophyte & Invasives Survey	A survey of aquatic macrophytes will be conducted periodically to track the balance of aquatic vegetation	Every 5 years, Annual	Ongoing	The District contracts with Blue Water Science on a regular basis to conduct lake surveys		Ongoing.
5222F	46	(Bone) Rough Fish Management	Remove rough fish to limit resuspension of lake bottom materials to reduce internal P load	Every other year	2015-2016	Telemetry performed in winter 2016. Identified that carp were not congregated enough to warrant winter harvest. Implemented flow trap netting in spring 2016 for second attempt at harvest. Low densities of observed carp at the trap point caused harvest to be cancelled.		Continue to monitor lake and nearby wetlands for carp activity. Four carp still contain telemetry tracking devices which can be used to inform future harvest.
New		(Bone) Zebra Mussel Rapid Response	Adapt Blue Water Science rapid response plan for Forest Lake to Bone Lake. Work with Washington County collaborative group to develop county-wide rapid response plan.	2016 (new item)	2016	Attended initial meeting of Washington County AIS Rapid Response group.		

New		(Bone) Lake Vegetation Management Plan Update	Work with DNR to update existing draft lake vegetation management plan	2016 (new item)	2016	After discussions with DNR and consultants, drafting of LVMPs were not pursued for District lakes. Benefits of drafting a LVMP were not sufficient to warrant time/resources spent on drafting and coordination.	May use funds to pursue District-wide AIS Management Plan instead.
5223A	46	(Birch) Phos. Source Assessment & Implementation Plan		2017	2016	Initial field recon is underway to determine monitoring locations for a 2016 monitoring.	Will be combined with the Little Comfort Phos. Source Assessment in 2016.
5225A	47	(Little Comfort) Phos. Source Assessment & Implementation Plan		2012	2016	Initial field recon is underway to determine monitoring locations for a 2016 monitoring.	A combined phosphorous source assessment will be completed for Little Comfort, Birch and School Lakes in 2016.
5225B	47	(Little Comfort) Shoreline Survey		2013	2015	Last shoreline survey performed in 2015.	To be incorporated into larger lakeshore inventory schedule.
5225C		(Little Comfort) AIS Management - updated from CLP Management	Manage CLP to reduce internal phosphorus load.	Annual after 2016	Ongoing	Spring 2016 delineation of CLP showed light growth, as predicted. No treatment was pursued.	Loosely monitor CLP growth in future years. Not expected to reach high densities.
5225D	47	(Little Comfort) Rough Fish Management	Plan to assess Little Comfort fish community with Blue Water Science in late summer 2016.	Every other year	2016	Contracted with Blue Water Science to conduct fish survey and sediment sampling in summer 2016.	Currently not deemed necessary.
5225E	47	(Little Comfort) Alum Treatment		2020	TBD	Conducting diagnostic study.	May be considered for additional monitoring and/or sediment core work.
5225F	47	(Little Comfort) Macrophyte & Invasives Survey		Every 5 years, Annual	Ongoing	Contracted with Blue Water Science to conduct annual survey.	Contracted with Blue Water Science to conduct macrophyte & Invasive survey in 2015
5226A	48	(Shields) Feasibility Study - Biomanipulation		2017	2016-2017	Working with City of Forest Lake to conduct partial feasibility study of southern drainage network in advance of imminent development.	Continue to coordinate with the City of Forest Lake and prepare for remaining feasibility work.
5226B	48	(Shields) Rough Fish Management	Manage rough fish population to limit resuspension of lake bottom materials and reduce internal P load in Shields Lake.	Every other year	Ongoing	Considered benefit of making repairs to electric fish barrier (approx. \$30,000) versus installing a passive fish barrier.	EOR to perform feasibility study of passive fish barrier.
5226C	48	(Shields) AIS Management - updated from CLP Management	Manage CLP to reduce internal phosphorus load.	Annual after 2016	TBD	No treatment until after 2016.	To be considered after excessive external load is reduced.
5226D	48	(Shields) Shoreline Survey	To be considered as part of future shoreline survey schedule.	2018	TBD	Conducting diagnostic study.	
5226E	48	(Shields) Macrophyte & Invasives Survey	Document diversity and abundance of plant species	Every 5 years, Annual			Contracted with Blue Water Science to conduct point-intercept surveys in 2015.
		(Shields) Lake Vegetation Management Plan	Work with DNR to create lake vegetation management plan	2016 (new item)	2016	Initiated preliminary discussions with DNR	Draft LVMP and send to DNR for review. Continue process until agreement is made
5226F		(Shields) 2018th Street Neighborhood Ponds Maintenance/Improvements	Reduce external P loading to Shields Lake by identifying sources and potential BMPs	2016 (new item)	2016	City of Forest Lake engineering staff conducted survey work of infrastructure, ditch cross-sections, and bathymetric surveys.	District engineers to use survey data for modeling. Modeling will help determine BMP scenarios to reduce P load
5227A	49	(Sylvan) Stormwater and Shoreline BMP Planning		2014	Reprioritized as a future effort.		
5227B	49	(Sylvan) Stormwater and Shoreline BMP Implementation		2015	Reprioritized as a future effort.		
5227C	49	(Sylvan) Shoreline Survey	Document and address unpermitted changes to shoreline.	2016	2016		Blue Water Science is planned to conduct shoreline survey in 2016.

5227D	49	(Sylvan) Macrophyte & Invasives Survey	Ensure that the Sylvan Lake aquatic plant community remains diverse.	Every 5 years, Annual		Conducted invasives survey in June 2016 and did not find any new infestations of Eurasian watermilfoil, flowering rush, or other plant species.		Contracted with Blue Water Science to conduct point-intercept surveys. Will contract with EOR to perform purple loosestrife assessment and report
5227E		(Sylvan) AIS Management	Manage AIS to promote healthy and diverse ecology.	2016 (new item)	2016	Performed AIS survey in June 2016 and did not find any new infestations. Organized a purple loosestrife biocontrol effort in June 2016 where over 1,000 loosestrife-feeding insects were captured in White Bear Lake and released at Sylvan Lake.		Monitor purple loosestrife response to biocontrol treatment through summer 2016
5228A	50	(Forest) Diagnostic Study and Implementation Plan	Conduct a diagnostic study for the Forest Lake watershed and develop a detailed implementation plan for water quality protection.	2016	2016	District staff applied for and recieved a PCA grant to fund the diagnostic study. The work plan has been recently completed and preliminary work will begin in 2015.		Project kick off and 2016 diagnostic monitoring.
5228B	50	(Forest) Forest Lake Diagnostic Study Implementation		2018-2020				
5228C	50	(Forest) Urban Stormwater Retrofit Planning & Design (FL01, FL81)		2017				
5228D	50	(Forest) Urban Stormwater Retrofit Implementation (FL01, FL81)		2018				
5228E	50	(Forest) Shoreline Survey		2015	Reprioritized as a future effort.			Future effort likely to include GPS enabled camera so as to create GIS layer for use by partners. City of FL currently is not enforcing their tree ordinance so reprioritized.
5228F	50-51	(Forest) Macrophyte & Invasives Survey		Every 5 years, Annual		Contracted with Blue Water Science to conduct delineations and assessments for flowering rush, curly-leaf pondweed and create AIS action plans for other AIS threats		Blue Water Science will perform follow-up assessment for CLP and will delineate 2015 flowering rush growth.
5228G	51	(Forest) AIS Management - updated from Aquatic Macrophyte and Invasive Species Mgmt		Annual	Annual	Conducted herbicide treatments on CLP (113.7 acres) and have plans to treat EWM and flowering rush, obtained Washington County grant funds to treat flowering rush and create flowering rush education and outreach materials		Will contract with MCC to perform mechanical removal and spot herbicide treatment of flowering rush later in the year, and will contract with PLM Lake and Land Mgmt to perform herbicide treatment of flowering rush in larger patches.
5228H	51	(Forest) Imperial Ave Area BMP Design (FL44) (2017)		2017				
5228I	51	(Forest) Imperial Ave Area BMP Implementation (FL44)		2018				
5228J	51	(Forest) North Shore Trail BMP Design (FL44)		2015	2016	District received a PCA CWF grant to conduct an assessment. This is expected to lead to projects to be designed and implemented.		Complete assessment and prioritization.
5228K	51	(Forest) North Shore Trail BMP Implementation (FL44)		2016	2017			Complete assessment and project design.
5228L	51	(Forest) In-Lake Treatment		2021				
5228M		(Forest) 3rd Lake Pond Implemenation	Wetland restoration project to reduce external P loading to Forest Lake (east basin/3rd Lake).	2016 (new item)	2016	Preliminary designs for project completed and approved by Board of Managers. Working with City of Forest Lake on land acquisition.		Obtain cooperative agreement with City of Forest Lake for access to land after they acquire ownership.
5228N		(Forest) Update Lake Vegetation Management Plan	Work with DNR to update existing draft lake vegetation management plan	2016 (new item)	2016	Initiated preliminary discussions with DNR		Draft LVMP and send to DNR for review. Continue process until agreement is made



5228O		(Forest) Hilo Lane Stormwater Retrofit Project	Primary construction will be completed during winter 2016.			Started primary construction on project including tree maintenance/remeval and drainage channel stabalization.		Wetland and iron sand filter work will take place during winter 2016-2017.
5229A	52	(Comfort) Sunrise Regional Stormwater Project Feasibility & Design		2011	2012	Sunrise River Water Quality & Flowage Report was finalized in 2012		
5229B	52	(Comfort) Sunrise Regional Stormwater Project Implementation		2012-2016	2014	Target Iron Enhanced Sand Filter, Raingardens & Tree trenches was installed in 2014. This was partially funded through a CWF grant.		Find other project partners of other projects in the Sunrise watershed.
5229C	52	(Comfort) Shoreline Survey		2013	2013	Survey completed.		
5229D	52	(Comfort) BMP Feasibility Study for District's Tax Forfeited Land		2013	Reprioritized as a future effort to focus on Bixby Park project.	District has been in negotiation with adjacent landowner to acquire additional property for this project.		Waiting for landowner to respond to offer by the District.
5229E	52	(Comfort) BMP Implementation on District's Tax Forfeited Land		2014	Reprioritized as a future effort to focus on Bixby Park project.			
5229F	52	(Comfort) Bixby Park Stormwater Ponds Design	Design SW mgmt features in Bixby Park to manage drainage to Comfort Lake from the more urban portions of the City of Forest Lake that developed prior to the incorporation of comprehensive stormwater management facilities.	2012	2015	Design complete.		Implementation phase.
5229G	52	(Comfort) Bixby Park Stormwater Treatment Implementation	Construct stormwater management features in Bixby Park or area identified in 5229F.	2013-2017	2013-2017	Obtained BWSR CWF grant. Obtained cooperative agreement with City of FL to gain access to land. Obtained DNR permit for construction work.		Bidding to begin Fall 2015. Construction to take place Winter 2015-2016. Vegetation management in 2017.
5229H	53	(Comfort) Macrophyte & Invasives Survey		Every 5 years, Annual		Blue Water Science conducted CLP delineation early 2015, District staff obtained DNR permit for herbicide treatment, Lake Mgmt Inc performed herbicide treatment in May 2015. AIS action plan for Comfort lake received from Blue Water Science		Blue Water Science will delineate eurasian watermilfoil and District will coordinate treatment
5229I		(Comfort) AIS Management	Manage CLP in Bone Lake to reduce internal P load. Manage EWM for recreational benefits	2016 (new item)	Annual	CLP was herbicide treatment was not performed in 2016, early season EWM treatment was performed to avoid water lily restrictions		CLP treatment again in 2015. Board make policy decision on continued treatment of EWM.
5229J		(Comfort) Update Lake Vegetation Management Plan	Work with DNR to update existing draft lake vegetation management plan	2016 (new item)	2016	Initiated preliminary discussions with DNR		Draft LVMP and send to DNR for review. Continue process until agreement is made
5299A	54	(Heims) Lake Water Quality Study	Conduct Lake Water Quality Study	2012	2015	Heims Lake Water Quality Study was completed in December 2015, public meeting to share the results with lake residents was held on May 12th, 2016 and was attended by eight lake residents.		
5299B	54	(First) Lake Water Quality Study	Conduct Lake Water Quality Study	2013	Reprioritized as a future effort.			Staff has reviewed WMP CIP and District Monitoring Plan. The timelines do not currently align. Staff will develop new lake study schedule based on current data, planned work, and other elements.
5299C	54	(Second) Lake Water Quality Study	Conduct Lake Water Quality Study	2013	Reprioritized as a future effort.			Staff has reviewed WMP CIP and District Monitoring Plan. The timelines do not currently align. Staff will develop new lake study schedule based on current data, planned work, and other elements.
5299D	54	(Third) Lake Water Quality Study	Conduct Lake Water Quality Study	2013	Reprioritized as a future effort.			Staff has reviewed WMP CIP and District Monitoring Plan. The timelines do not currently align. Staff will develop new lake study schedule based on current data, planned work, and other elements.

5299E	54	(Fourth) Lake Water Quality Study	Conduct Lake Water Quality Study	2014	Reprioritized as a future effort.		Staff has reviewed WMP CIP and District Monitoring Plan. The timelines do not currently align. Staff will develop new lake study schedule based on current data, planned work, and other elements.
5299F	54	(Sea) Lake Water Quality Study	Conduct Lake Water Quality Study	2014	Reprioritized as a future effort.		Staff has reviewed WMP CIP and District Monitoring Plan. The timelines do not currently align. Staff will develop new lake study schedule based on current data, planned work, and other elements.
5299G	54	(Nielsen) Lake Water Quality Study	Conduct Lake Water Quality Study	2015	Reprioritized as a future effort.		Staff has reviewed WMP CIP and District Monitoring Plan. The timelines do not currently align. Staff will develop new lake study schedule based on current data, planned work, and other elements.
5299H	54	(Clear) Lake Water Quality Study	Conduct Lake Water Quality Study	2016	Reprioritized as a future effort.		Staff has reviewed WMP CIP and District Monitoring Plan. The timelines do not currently align. Staff will develop new lake study schedule based on current data, planned work, and other elements.
5299I	54	(Twin) Lake Water Quality Study	Conduct Lake Water Quality Study	2017	Reprioritized as a future effort.		Staff has reviewed WMP CIP and District Monitoring Plan. The timelines do not currently align. Staff will develop new lake study schedule based on current data, planned work, and other elements.
5299J	54	(Cranberry) Lake Water Quality Study	Conduct Lake Water Quality Study	2018			Staff has reviewed WMP CIP and District Monitoring Plan. The timelines do not currently align. Staff will develop new lake study schedule based on current data, planned work, and other elements.
5299K	54	(Elwell) Lake Water Quality Study	Conduct Lake Water Quality Study	2019			Staff has reviewed WMP CIP and District Monitoring Plan. The timelines do not currently align. Staff will develop new lake study schedule based on current data, planned work, and other elements.
5299L	54	(Lendt) Lake Water Quality Study	Conduct Lake Water Quality Study	2020			Staff has reviewed WMP CIP and District Monitoring Plan. The timelines do not currently align. Staff will develop new lake study schedule based on current data, planned work, and other elements.
<b>5300</b>		<b>Streams</b>					
5340A	55	(Sunrise) Stream Assessment		2012		Initial work completed as part of larger Sunrise River engineers report.	
5340B	55	(Sunrise) E. coli Source Assessment & Implementation Plan		2015	Reprioritized as a future effort.		
5340C	55-56	(Sunrise) Forest Lake Outlet Channel Design and Restoration		2016	Reprioritized as a future effort.		District considering projects on smaller segments.
5341A	56	(BBSLC Tributary) Stream Assessment		2014	2015-2016	Baord approved District engineer to conduct partial fall 2015 assessment.	To be included in future Bone Lake to Comfort Lake (BBSLC) corridor inventory and inspection.
5341B	56	(BBSLC Tributary) School-Little Comfort Tributary Stream Restoration Design (LCL04)		2015	2016-2017		
5341C	56	(BBSLC Tributary) School-Little Comfort Tributary Stream Restoration (LCL04)		2016	2017-2018		
5341D	56-57	(BBSLC Tributary) E. coli & DO Source Assessment & Imp. Plan		2015	2015	Preliminary assessment of near stream E. coli sources will be completed fall of 2015	
5341E	57	(BBSLC Tributary) Buffer Survey		2014	2015	Baord approved District engineer to conduct partial fall 2015 assessment.	To be included in future Bone Lake to Comfort Lake (BBSLC) corridor inventory and inspection.

<b>5400</b>		<b>Wetlands</b>						
5420A	58	Wetland Inventory		2012-14	2012-2014	Chisago SWCD conducted MLCCS and wetland inventory. Identified top sites for restoration within District.		Applied for CWF grant for restoration of top sites.
5420B	58-59	Wetland Restoration/Bank Feasibility Study		2019				
5420C	59	Wetland Restoration/Bank Implementation		2020				
5421A	60	(Moody) Wetland Restoration and Cattle Exclusion (NBL12)	Restore wetland hydrology and exclude livestock from wetlands in Moody Lake subwatersheds to improve water quality contributing to lake	2011	2011/2016	Initial work done in 2011. Diagnostic study completed in 2014 identified P loading hot spots and potential BMPs. BMP feasibility was scoped in 2015. CWF grant applied for.		Work with local stakeholders to gain land access/implement livestock BMPs
5422A	60	(Bone) Phosphorus Source Assessment (NBL17)	Identify P load sources in wetland between Moody and Bone Lake.	2012	2015	A diagnostic study was completed in 2015 for all Bone Lake watersheds. This study identified P loading hot spots and potential BMPs. CWF grant applied for.		Prioritize project sites of Bone Lake Diagnostic Study.
5422B	60	(Bone) Wetland Restoration Feasibility & Design (NBL17)	Evaluate the feasibility of identified options and design a wetland restoration P load reduction project in the wetland.	2013	2016	Future additional work to be prioritized based on the outcome of the Bone Lake Diagnostic work.		
5422C	60	(Bone) Wetland Restoration (NBL17)	Restore the wetland as designed in 5422B.	2012	TBD			
5422D	60	(Bone) Phosphorus Source Assessment (SBL38)	Conduct a P source assessment of this subwatershed.	2013	2015	A diagnostic study was completed in 2015 for all Bone Lake watersheds. This study identified P loading hot spots and potential BMPs. CWF grant applied for.		Prioritize project sites of Bone Lake Diagnostic Study.
5422E	60	(Bone) Wetland Restoration Planning & Design (SBL38)	Evaluate the feasibility of identified options and design a wetland restoration P load reduction project in the wetland.	2014	2016	Future additional work to be prioritized based on the outcome of the Bone Lake Diagnostic work.		
5422F	60	(Bone) Wetland Restoration (SBL38)	Restore the wetland as designed in 5422E.	2015	TBD			
		(Bone) Wetland Planning & Design (SBL - ALL drainage areas)		2016 (new item)				
5423A	61	(Birch) Wetland Phosphorus Source Assessment (LCL20)	Conduct a P source assessment of this subwatershed.	2014	2016	Initial field recon is underway to determine monitoring locations for a 2016 monitoring.		Conduct field recon and monitoring.
5423B	61	(Birch) Wetland Restoration Design (LCL20)	Design a wetland restoration project as guided by 5423A.	2014	2017			
5423C	61	(Birch) Wetland Restoration (LCL20)	Implement a wetland restoration project.	2015	TBD			Conduct field recon and monitoring.
5428A	62	(Forest) Wetland Restoration & Cattle Exclusion (FL44)	Install fencing to exclude cattle from wetland.	2011	2012	Completed.		Conduct field inspections to verify exclusion.
<b>5500</b>		<b>Upland Resources</b>						

		Staff Management/Coord.	Conduct an MLCCS assessment of the District.	2012-13	2012-2013			
5520C	63	Natural Resources Inventory and Prioritization	Analyze the MLCCS data to compile a natural resources inventory and set priorities for protection and management.	2014	Reprioritized as a future effort.			
5520A	63	Invasive Species Management Plan	Prepare an upland invasive species management plan.	2015	2016	Funded as part of overall AIS/IS effort.		
<b>5600</b>		<b>Groundwater</b>						
5620A	64	GW-Dependent Natural Resource Inventory and Review		2012	Reprioritized as a future effort.			
5620B	64	GW-Dependent Natural Resource Action Plan		2014	Reprioritized as a future effort.			
5627A	64	(Sylvan) Groundwater Protection Feasibility Study		2014	Reprioritized as a future effort.			
5627B	65	(Sylvan) Groundwater Protection Implementation		2015	Reprioritized as a future effort.			
5628A	65	(Forest) GW-Dep. Natural Resource Interpretive Feature Feasibility (FL44)		2016	Reprioritized as a future effort.			
5628B	65	(Forest) GW-Dep. Natural Resource Interpretive Feature Implementation (FL44)		2017	Reprioritized as a future effort.			
<b>5700</b>		<b>Public Education</b>						
5720A	66	Education in Public Parks – Land/Water Connection and District Resources	signage specific to local resources	2015/2020	2016	Funded as second tier project for 2016.		Reassess in 2nd half of 2016.
<b>5800</b>		<b>Interagency Communication</b>						
5820A	66	Watershed District Administration and Technical Resource Sharing	No projects planned at this point.	NA	TBD			
<b>5900</b>		<b>Land Acquisition and Management</b>						
5920A	(NEW)	Land Acquisition and Management	Acquisition of property available for projects.	Annual	2016	Funded in 2016.		