

BWSR Clean Water Assistance Grants

Funds are to be used to protect, enhance and restore water quality in lakes, rivers and streams and to protect groundwater and drinking water. Activities include structural and vegetative practices to reduce runoff and retain water on the land, feedlot water quality projects, SSTS abatement grants for low income individuals, and stream bank, stream channel and shoreline protection projects.

| Row | County | Applicant | Amount Requested (\$) | Amount Recommended (\$) | CWA Title | Project Description |
|-----|---------------|--|-----------------------|-------------------------|---|--|
| 1 | Dakota | Dakota County Soil and Water Conservation District | \$ 150,000 | \$ 150,000 | Dakota County Agricultural Conservation Partnership | The SWCD, in cooperation with the Vermillion River Watershed Joint Powers Organization (VRWJPO) and the North Cannon River Watershed Organization (NCRWMO), will target, prioritize, and establish BMPs that reduce pollutants in subwatersheds with identified surface water impairments and poor ground water quality. BMPs like grassed waterways, sediment and water control structures, streambank stabilization projects, feedlot improvement projects and filter strips will be installed to reduce pollutants including bacteria, phosphorus, nitrogen, and sediment. Currently, 23 projects and willing landowners have been identified and are scheduled to be surveyed, designed, and ready for construction starting in the spring of 2012. Preliminary design estimates are that these projects will reduce phosphorus and sediment by a combined 561 pounds and 657 tons respectively. |
| 2 | Lake | Lake County Soil & Water Conservation District | \$ 282,634 | \$ 282,634 | Knife River Watershed Protection Project - TMDL Turbidity Reduction | This project will restore the two most severely eroding streambank sites on the Knife River, a river that is listed as impaired for excess turbidity by the MPCA. Combined, the two sites are 1,000 feet in length with 50 to 70-foot high clay banks. Annually, the sites generate 697 pounds of phosphorus and contribute 606 tons of sediment to the TMDL turbidity impairment. With an average annual sediment delivery amount of 3,630 tons for the Knife River, stabilizing these sites will reduce the sediment load by approximately 17 percent. |
| 3 | Lac qui Parle | Lac qui Parle Soil & Water Conservation District | \$ 53,533 | \$ 53,533 | Flood Plain Well Pit Retrofit and Groundwater Protection | This project would retrofit 35 well pits. All domestic water supplies in Lac qui Parle County are from groundwater sources. One estimate is that about 30% of older wells located in well pits can fill with surface water in the spring or during a flood event. Assisting residents to protect their water supply system, targeting floodplain areas first, is spelled out as an implementation activity in the County's Water Management Plan. Any type of well has the potential to allow contaminants a direct pathway to pollute groundwater, but these wells situated below ground level are especially hazardous. |
| 4 | Washington | Brown's Creek Watershed District | \$ 158,800 | \$ 158,800 | Iron-enhanced Sand Filter - Settlers Glen 5th Addition, Stillwater | The Brown's Creek Watershed District has collaborated with the University of Minnesota St. Anthony Falls Laboratory, City of Stillwater and MN DNR Waters and Fisheries to design an iron-enhanced sand filter in an ideal setting to remove approximately 118 pounds of total phosphorus per year from an area of Stillwater that has been diverted away from Brown's Creek since 2002 to McKusick Lake and the St. Croix River, both impaired water bodies for excess phosphorus. The system is designed to harvest the "first flush" of a storm event and run event flows through the iron-enhanced sand filter for up to a 24-hour time period. The existing stormwater facility works well for retrofitting with an iron-enhanced sand filter, allowing for enough head and wet-dry cycling for oxidation of the iron, and receives 1,200 acres of contributing drainage. The site has an additional bonus in that it has good visibility and access as a demonstration site. |

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| 5 | Stearns | Clearwater River Watershed District | \$ 738,750 | \$ 738,750 | Clearwater Lake Chain TMDL Implementation: Kimball Stormwater Phase II | This project is Phase II of the CRWD's plan to reduce nutrient loading to sensitive and impaired downstream waters, and to protect high value recreational resources by managing stormwater from one of two urban areas within the watershed draining to the impaired waters. Formerly filed wetlands are restored to enhance the hydrology and habitat of the area, and some high land areas are converted to wetlands to provide retention, filtration and infiltration. |
| 6 | Polk | East Polk SWCD | \$ 251,680 | \$ 251,680 | Phase II Sand Hill River Watershed Accelerated Erosion Area BMP's | The East Polk Soil and Water Conservation District will continue to implement erosion control/sediment reduction project in the Upper Sand Hill River Watershed. To date, 31 water and sediment basins have been installed with an additional 38 water and sediment basins shovel ready to be installed once engineering design plans and cost estimates are completed. Starting in 2006, an area of significant turbidity impairment has emerged on the Sand Hill River from Winger and downstream to an area SW of Winger. The activities of this project will be focused in this area. |
| 7 | Wadena | Wadena SWCD | \$ 91,305 | \$ 91,305 | Wadena County Sand Plains Nitrate Groundwater Protection Project | A large portion of Wadena County is ranked with a high or moderate probability of having elevated nitrate concentrations. With almost all of the residents in Wadena County using groundwater as the source of drinking water, this issue was a top priority identified in the Wadena County Local Water Management Plan. The adoption of low pressure irrigation can save approximately 3.7 lbs/acre of nitrates from being leached into the soils and an irrigation scheduling program can save an additional 7.4 lbs/acre of nitrates being leached due to over irrigation. |
| 8 | Otter Tail | East Otter Tail SWCD | \$ 130,650 | \$ 130,650 | East Otter Tail County Nitrate Groundwater Protection Project | The conversion from a high or medium pressure irrigation system to a low pressure system improves the efficiency of water use through the system (decreased evaporation). This reduces the draw on the groundwater resource by an estimated 25% to 30%. The reduced pumping also reduces energy use by an estimated 10% - 35% depending on the type of system. The adoption of low pressure irrigation can save approximately 3.7 lbs/acre of nitrates from being leached into the soils and an irrigation scheduling program can save an additional 7.4 lbs/acre of nitrates being leached due to over irrigation. |
| 9 | Multi-County | Pomme de Terre River Association | \$ 350,470 | \$ 350,470 | Pomme de Terre River Watershed BMP 2012 Initiative | The Pomme de Terre River is impaired for turbidity and from Muddy Creek to Marsh Lake, the river is impaired for fecal coliform. The six SWCD's partnering in this project have identified the following BMP's as conservation practices that will be instrumental in achieving these reductions; agricultural riparian buffer strips, wetland restorations, rain gardens, and shoreline restoration and stabilization. |
| 10 | Redwood | Redwood Soil & Water Conservation District | \$ 363,957 | \$ 363,957 | Revere, MN - Pell Creek Sub-Watershed 29053 | Where Pell Creek enters the Cottonwood River, aquatic recreation, aquatic consumption and aquatic life are considered impaired due to turbidity and fecal coliform and mercury contamination. A reach upstream of the targeted sub-watershed is impaired due to turbidity, resulting in low oxygen levels. Using aerial imagery and LiDAR we will be able to identify areas that would be most appropriate for these various conservation practices. Through installation of grade stabilization and Water and Sediment Control Basins, water will be held on the land for short periods of time to reduce peak flows in the Pell Creek drainage system and, in turn, will reduce the impacts resulting from high, uncontrolled flows in the sub-watershed during peak run-off periods. Initial estimates are that over 200 tons of sediment and 200 lbs of phosphorus will be saved each year in additions to reductions in nitrogen and fecal coliform inputs to the Creek. |

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| 11 | Mille Lacs | Mille Lacs SWCD | \$ 55,129 | \$ 55,129 | Groundwater Protection of Highly Vulnerable Drinking Water - Feedlot Manure Management | This project will protect groundwater near the City of Princeton, MN from nutrient contamination associated with livestock manure storage. Well water tested throughout Mille Lacs County and specifically within the Anoka Sand Plain area of Princeton, routinely indicate the presence of nitrates above 10ppm in shallow drinking water wells. This livestock feedlot is located in an area where the water table is within six (6) inches of the surface and is within one half mile of the Drinking Water Safety Management Area for the City of Princeton. |
| 12 | Traverse | Bois de Sioux Watershed District | \$ 333,200 | \$ 333,200 | Mustinka River TMDL Turbidity Reduction Project | This grant will provide staff time and resources for project development and promotion of 1,875 acres of buffers and 515 acres of wetland restorations. This grant will also provide one-on-one technical assistance to landowners for the enrollment of a total of 1,150 acres of Continuous CRP buffers and 445 acres of wetland restorations within the entire project area. Other specific conservation practices will include water and sediment control basins, repairing eroded gullies and streambank restorations. |
| 13 | Olmsted | Olmsted County | \$ 575,540 | \$ 575,540 | Cascade Creek Turbidity Reduction Through Rural Retention and Stream Restoration | The purpose of this project is to design, construct, and maintain two retention structures and restore approximately 4,700 LF of failed stream bank to address nonpoint source turbidity pollution in rural areas, while also restoring aquatic health and providing flood protection. This project integrates the once-disparate objectives of Olmsted County, the Department of Natural Resources (DNR), and City of Rochester into a common project. The recommended approach is intended to deliver: reduced runoff flow volumes and velocities, improved water quality, stabilized stream and drainage systems, reduced sediment and stream bank erosion, enhanced wildlife habitats, protected groundwater recharge areas, lower transportation costs, increased hydrologic connectivity, and restored wetlands. |
| 14 | Ramsey | Rice Creek Watershed District | \$ 497,100 | \$ 497,100 | Bald Eagle Lake Watershed Stormwater Re-use/Phosphorus Reduction Project | This project will collect and store stormwater runoff from a 915 acre watershed upstream of Bald Eagle Lake and use it instead of well water to irrigate 116 acres within the Oneka Ridge Golf Course. After meeting irrigation needs, if additional runoff volume is available, it will be pumped into infiltration areas to be constructed within the golf course to further reduce runoff volumes. Based on the estimates for runoff volume reduction and monitored concentrations of phosphorus in this water, this project has the potential to annually reduce the phosphorus load directed to Bald Eagle Lake from the sub-watershed by between 75 and 225 pounds (90% reduction). A TMDL for Bald Eagle Lake has been completed and indicates a 38% reduction (809 pounds) in watershed loading is required to meet state water quality standards. |
| 15 | Dakota | Dakota County Soil and Water Conservation District | \$ 300,000 | \$ 300,000 | Stormwater Retrofit Partnership in Dakota County | This project will retrofit stormwater BMPs on public lands or private land protected by easements to assist partnering LGUs in achieving water quality goals identified in local stormwater plans. The following LGUs support the continuation of this program and have initiated potential project development activities for approximately 36 projects: the cities of Apple Valley, Mendota Heights, Burnsville, Lakeville, Eagan, Rosemount, Farmington, South St. Paul, Hampton, West St. Paul, Hastings, and Inver Grove Heights; and Dakota County and Empire Township. |
| 16 | Kandiyohi | Middle Fork Crow River Watershed District | \$ 252,125 | \$ 252,125 | Green Lake Stormwater Quality Improvement Project | The Green Lake Stormwater Quality Improvement Project will provide retrofitted solutions to the water volume and water quality issues threatening this priceless resource. Five initiatives will be implemented, including the day lighting of a newly developed riffle and pool lined channel, a raingarden/biofiltration program to accompany the channel, a parking lot retrofit designed to treat first flush pollutants, a biofiltration cell and hydrodynamic separator to enhance a previously installed BMP, and the stabilization of a heavily eroded channel due to stormwater influences. Green Lake is not an impaired water body; it is, however, a part of the MPCA's Major Watershed Restoration and Protection Program. |

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| 17 | Washington | Middle St. Croix Watershed Management Organization | \$ 45,525 | \$ 45,525 | Lily Lake Stormwater Retrofit Project, Phase II | This project will work to implement priority stormwater treatment projects that were identified in the recently completed Lily Lake Stormwater Retrofit Assessment. The project will also work to reduce TSS to Lily Lake by 5,794 lbs/yr, and provide a volume reduction of 7.3 acre-feet/year. The overall long-term goal for the lake is to reduce phosphorous loading by 145 lbs/yr in order for the Lake to meet state standards for nutrient contents. Lily Lake is currently impaired for excess nutrients. This project will work to install 2,450 cubic feet of live storage volume to capture runoff from City streets and filter it before it reaches Lily Lake. Installation of the infiltration features will result in a 8.7 lb/year reduction of phosphorous, according to WINSLAMM modeling data. |
| 18 | Lake | Lake County SWCD | \$ 105,075 | \$ 105,075 | Stewart River Watershed Protection Project | This project will restore five severely eroding streambank sites along a 1.5 mile reach of the Stewart River. The sites generate over 446 tons of sediment and 480 pounds of phosphorus annually. The Stewart River is a state protected water and has been identified as one of five High Priority Watersheds during the 2020 update of the Lake County Water Management Plan. The Stewart river empties into Lake Superior and is classified as a Designated Trout Stream. Lake Superior is the public drinking water supply source for the City of Two Harbors which is located three miles southwest of the mouth of the Stewart River. |
| 19 | Houston | Root River | \$ 63,175 | \$ 31,588 | Targeted Conservation Measures Utilizing Stream Power Index | Utilizing the Stream Power Index Terrain Analysis, Root River SWCD identifies high priority sites most likely to deliver sediment to trout streams within the Root River Watershed. To address these sites, the project establishes a tiered approach to cost-share, rewarding landowners who are willing to exceed traditional land treatment standards, with higher cost-share rates. To achieve maximum cost-share rate, landowners must include a conservation cropping system which includes hay or grass, residue management, gully erosion control, and upland treatment 25% below tolerable soil loss limits. The subwatersheds within the Root River targeted in this effort were identified for their biodiversity significance harboring rare species like Ozark minnow, American brook lamprey while supporting a coldwater trout fishery. This will have a cumulative benefit to hydrology, reducing peak flow in streams, thereby reducing in-stream erosion which is estimated to contribute approximately 60% of sediment delivered by these streams. |
| 20 | Otter Tail | East Otter Tail SWCD | \$ 86,310 | \$ 86,310 | Lake Seven Watershed Exceptional Resource Protection Project | This project will maintain ecoregion leading water quality in Lakes Six and Seven by reducing pollutant loading to the affected lakes. Lake Seven is a waterbody of statewide significance often leading the north central hardwoods forest ecoregion in water clarity. Through a lake management planning process Lake Six and Seven residents identified 15 locations to reduce the volume of stormwater runoff entering the lakes from shoreland properties. |
| 21 | Washington | South Washington Watershed District | \$ 156,645 | \$ 156,645 | Colby Lake Neighborhood Retrofit | South Washington Watershed District (SWWD), in partnership with the Washington Conservation District (WCD) and City of Woodbury, will improve water quality in Colby Lake through implementation of 30 priority small-scale water quality Best Management Practices (BMPs) in the Colby Lake 1st Addition neighborhood. Projects may include bioretention, vegetated swales, and pond modifications. This project is expected to reduce phosphorus inputs to Colby Lake by 10.5 pounds/yr, Total Suspended Solids by 2.3 tons/yr, and sediment by 5.3 tons/yr. |

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| 22 | Washington | Middle St. Croix Watershed Management Organization | \$ 37,925 | \$ 37,925 | McKusick Lake Stormwater Retrofit Project, Phase I | This project will work to implement priority stormwater treatment projects that were identified in the recently completed McKusick Lake Stormwater Retrofit Assessment (2010 study). Project implementation will occur in one catchment named McKusick - 25, which drains to McKusick Lake in Stillwater, MN. The goal of the project will be to reduce phosphorous loading from the catchment by 20%, or 5.6 pounds/year. The project will also work to reduce TSS to McKusick by 4,108 lbs/yr, and provide a volume reduction of 4.3 acre-feet/year. McKusick Lake is currently impaired for excess nutrients, but is proposed for delisting. |
| 23 | Wright | Wright Soil and Water Conservation District | \$ 66,580 | \$ 66,580 | Reducing Turbidity Using Natural Channel Management in the Crow River | This project will stabilize a severely eroded 800 foot section of streambank which is contributing large amounts of sediment to the Crow River, which enters the Mississippi River. The method proposed will mimic a stable natural stream channel and provide improved aquatic habitat that will include scour pools with coarse woody debris. The project focus is an 800 foot streambank of the Lower Crow River where localized land use issues and geomorphic processes are causing an increased rate of erosion. In addition to stabilizing the streambank, the stream channel will be improved to efficiently transport sediment which will reduce downstream impacts. Natural materials will be used to establish a floodplain bench to protect the toe of the streambank and provide habitat. |
| 24 | Washington | Comfort Lake-Forest Lake Watershed District | \$ 176,047 | \$ 176,047 | Greening the Big Box and Greening Streets for Comfort Lake | The Greening the Big Box and Greening Streets for Comfort Lake project will install stormwater management controls in targeted areas where minimal or no stormwater controls currently exist. The project will install stormwater practices to filter and absorb runoff from areas that currently flow untreated to nearby wetlands, the Sunrise River, and Comfort Lake. The addition of stormwater practices will reduce the total phosphorus load to Comfort Lake by an estimated 11.2 pounds per year, or 8.9% of the annualized total maximum daily load. This proposed project supports the goals of the TMDL and implementation plan because it directly addresses loads from the most highly developed areas of the Comfort Lake drainage area. |
| 25 | Hennepin | City of Medina and Loretto | \$ 334,450 | \$ 334,450 | Loretto Creek Phosphorus Removal Project: Cities of Medina & Loretto | A joint project between the Cities of Loretto and Medina will provide treatment for 490 acres of the Loretto Creek watershed that drains to Lake Sarah, a regionally significant lake that was listed as impaired for nutrients in 2006. A Total Maximum Daily Load (TMDL) study for Lake Sarah was completed in 2011 and determined that Loretto Creek carries approximately 269 pounds of sediment and nutrients, primarily phosphorus, to Lake Sarah each year. The project includes restoring a portion of Loretto Creek to a more natural design by meandering the channel, flattening the side slopes and creating native vegetated buffers. A sedimentation pond will be constructed to collect coarse sediment during low flow storm events and will slow down the velocity of the stream. Down stream of the sedimentation pond, a larger water quality pond will be constructed within the existing upland area of the northwest ball field complex. The stormwater modeling calculations estimate that 140 lbs of phosphorus will be removed per year with the current design. |

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| 26 | Ramsey | Ramsey-Washington Metro Watershed District | \$ 1,250,000 | \$ 625,000 | Maplewood Mall Stormwater Retrofit Phase 4 | The proposed project addresses aspects of the Kohlman Lake TMDL Implementation Plan through the construction of infiltration and filtration projects throughout 12 acres of Maplewood Mall's parking lot. These infiltration projects include: trees planted in rock trenches, porous pavement, and rainwater gardens/bioretenation areas. Kohlman Lake is the first lake in the Phalen Chain of Lakes (Kohlman, Gervais, Keller and Phalen Lakes) which are an important recreational amenity in the east Metro area. This chain of lakes represents the District's premier water resources and is a major recreational resource to the residents of the Twin Cities Metro Area. This project will reduce the phosphorus load from the tributary parking lot area by 60 to 80%- a substantial improvement in runoff water quality from the site (currently, there is no treatment of stormwater on the 12 acre site.) The sediment load from the site will be reduced by approximately 90%. |
| 27 | Clearwater | Clearwater Soil and Water Conservation District | \$ 32,260 | \$ 32,260 | Lost River Watershed Runoff Reduction Project | A primary element of this project involves providing conservation expertise and technical designs to an underserved population who requests no additional government funds for project installation. On this project over 2100 feet of the Lost river shoreland will be improved through installation of buffers, streambank restoration, and livestock exclusion. Other segments of this project will reduce erosion and nutrient concerns in cropland areas of the Lost River by installing side water inlets and shoreland restorations on Pine Lake, the major recreational lake in Clearwater County and a receiving water for the Lost River. |
| 28 | Marshall | Marshall Soil and Water Conservation District | \$ 357,500 | \$ 178,750 | Accelerated Sediment Reduction Practice Installation along the Upper Thief River | The City of Thief River Falls obtains drinking water from the reservoir on the Thief River. The Thief River and its tributaries have water quality impairments, including low dissolved oxygen, turbidity, ammonia, and E. coli. Sediment plumes and deltas have formed at the inlets of pools in Agassiz National Wildlife Refuge (Agassiz Pool) and Thief Lake. Radioisotope soil fingerprinting analysis indicates that the dominant source of sediment in this watershed was erosion of uplands and fields. Targeted areas within the Thief River Watershed have been prioritized through analysis of sub-basin sediment yields generated by a SWAT model of the watershed. The goal is to establish 75 miles of grassed filter strips, 20 miles of field windbreaks, and install 50 grade stabilization structures where needed. These practices will reduce sediment delivery into the Thief River, Agassiz National Wildlife Refuge and Thief Lake Wildlife Management Area. |
| 29 | Mower | Cedar River Watershed District | \$ 133,250 | \$ 133,250 | Upper Cedar Watershed Runoff Reduction Project | This project will install at least 10 water and sediment control basins in the targeted subwatershed with an estimated reduction of 25 tons of soil per year. Dobbins Creek and adjacent subwatersheds have had numerous modeling studies completed including SWMM, SWAT and Geisha. The SWMM model look at the hydrology of the area and the SWAT model looked at the pollutant loading in the streams. The results showed that portions of the Dobbins Creek Watershed were in violation of state standards for turbidity. These violations occurred in 5 of the 10 years which were studied as part of a SWAT model analysis. Flows were identified as a significant contributing factor to the high sediment loading. |

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| 30 | Kittson | Kittson Soil and Water Conservation District | \$ 200,000 | \$ 100,000 | Lake Bronson Watershed Runoff Reduction Project - Phase II | The project will reduce runoff and decrease movement of sediment, nutrients and bacteria by targeting, prioritizing and installing vegetative practices along with potentially installing Side Water Inlets (SWI) within the Lake Bronson and upland subwatersheds. Emphasis will be placed on the South Branch of Two Rivers, which feeds Lake Bronson, along with State Ditch 90, 91 and 95 which are subwatersheds within the Two Rivers Watershed District (TRWD). Lake Bronson was created by the Works Progress Administration in the late 1930's and was created by constructing a dam across the South Branch Two Rivers. Lake Bronson was originally constructed for the purpose of water supply for the City of Hallock and surrounding areas. The lake is managed and the dam operated by the Minnesota DNR in conjunction with Lake Bronson State Park. The lake is subject to sediment and nutrient loading from several upstream state and county ditches. A significant algae bloom during early July of each year occurs and is most likely due to the current inflow conditions. |
| 31 | Ramsey | Vadnais Lake Area Water Management Organization | \$ 55,800 | \$ 55,800 | Central Middle School Infiltration Swale and Education Project | Lambert Creek discharges into Vadnais Lake, which is the final impoundment reservoir containing the potable water supply for the city of St. Paul and 8 nearby suburbs. Monitoring data indicates high nutrient levels and the creek is listed on the State's Impaired Waters List for E. coli. A TMDL Work Plan is complete. With Central Middle School, there is an opportunity to modify an existing practice to maximize its efficiency. The swale currently does not infiltrate due to a layer of compacted soil and the incorrect slopes within the swale. There is also no pre-treatment currently occurring and therefore solids from the parking lots are entering the swale directly and moving into the storm drain located at the end of the swale with little to no infiltration. It is an area surrounded by parking lot and other impervious surfaces and since the swale already exists, it is an optimal location to do a cost effective BMP project. Project estimates are that with the reconstruction of the new wet swale and installation of the pre-treatment chambers, we will reduce TSS by 1,157 lbs/year (93% reduction), Total Phosphorus by 2.15 lbs/year (92% reduction) and volume of stormwater by 119,965 cu-ft/year (94% reduction). |
| 32 | Hennepin | Bassett Creek Watershed Management Commission | \$ 217,500 | \$ 217,500 | Bassett Creek Golden Valley Road to Irving Avenue Restoration Project | This project will stabilize a total of 3,100 feet of streambanks at eight locations over a total reach length of approximately 15,000 feet, primarily within Theodore Wirth Park. This park is heavily used by area residents and stabilizing these locations will help preserve the stream by maintaining clear water and preventing sedimentation. Monitoring data from the Bassett Creek WOMP station in 2003 indicates an annual TP loading of 9,300 lbs and TSS loading of 2,140,000 lbs (1,070 tons). The BCWMC CIP includes stream restoration projects to address channel and bank erosion problems identified by member cities. The BCWMC feasibility study completed in 2011 found that stabilizing the project reach would reduce the TP loading by 60 lbs per year and the TSS loading by 105,000 lbs per year. |
| 33 | Hennepin | City of Bloomington | \$ 235,200 | \$ 235,200 | Bloomington: Green Streets for Blue Waters | Green Streets for Blue Waters is a collaborative effort to install curb cut raingardens and other stormwater best management practices (BMP) within public right of way and private land in the City of Bloomington. The practices will reduce sediment, phosphorus, and stormwater volumes generated by the residential area adjacent to the Minnesota Valley National Wildlife Refuge (MVNWR), a critical habitat area in the heart of the Twin Cities. The project intends to disconnect 22 acres from the conventional storm sewer and reduce 14 lbs of phosphorus and 15.4 lbs of total suspended solids from entering the Minnesota River annually. |

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| 34 | Scott | Scott Watershed Management Organization | \$ 34,500 | \$ 34,500 | Native Grass Cost Share and Incentives For Runoff Reduction Continuation | The Scott WMO has a long-term strategy to reduce runoff in Sand Creek, and alternative grass crops have been identified as one of the practices to promote. This project is a continuation of a successful effort by the Scott WMO and the Scott SWCD to establish native grasses for runoff reduction that received funding from the Clean Water Fund in 2010. Sand Creek has been identified as a disproportionate source of sediment to the Minnesota River. This is a long-term approach designed to moderate flow while at the same time improving the creek corridor so that it can achieve a new dynamic equilibrium. Native grass plantings are being promoted as a means of both improving the corridor and moderating flow. |
| 35 | Kittson | Kittson Soil and Water Conservation District | \$ 150,000 | \$ 75,000 | Red River of the North Watershed Runoff Reduction Project | The project will reduce runoff and decrease movement of sediment, nutrients and bacteria by targeting, prioritizing and installing vegetative practices along with potentially installing Side Water Inlets (SWI) within the Red River of the North which is impaired for turbidity and upland subwatersheds. Emphasis will also be placed on County Ditches 12 and 26 in the Two Rivers Watershed District and County Ditches 12, 28 and 29 in the Joe River Watershed District. These ditch systems and the Red River of the North are prone to major flooding and sediment overload due to current cropping practices. |
| 36 | Anoka | Anoka Conservation District | \$ 339,700 | \$ 339,700 | Oak Glen Creek Corridor Stabilization | The Oak Glen Creek Corridor Stabilization project will stabilize a ¼ mile section of creek corridor that presently has 20-30 foot bare soil cliffs. The creek's watershed delivers 352 tons of sediment to the Mississippi River each year, 287 tons of which are generated in this section of the creek. The project offers an 81% reduction of sediment loading and improves habitat in a critical area adjacent to the Mississippi River. This greatly exceeds the goals outlined in the TMDL. |
| 37 | Washington | Middle St. Croix Watershed Management Organization | \$ 194,900 | \$ 194,900 | Lily Lake Stormwater Retrofit Project, Commercial Properties | This project will work to implement stormwater treatment projects that were identified in the recently completed Lily Lake Stormwater Retrofit Assessment. The project will work to reduce TSS loading to Lily Lake by 4,144 lbs/yr, phosphorus loading by 5 pounds/year and provide a stormwater volume reduction of 11.16 acre-feet/year. The project will maximize the benefits by proposing a number of projects including but not exclusively raingardens, pavement reductions, buffers, water recycling on site, pond use for irrigation and adjusting outlet elevation and weirs. Areas with the maximum resulting benefit will be selected, the benefit will be determined based on recommendations from the stormwater retrofit study, modeling efforts of individual BMP's and cost/benefit evaluation. |
| 38 | Chisago | Chisago SWCD | \$ 238,640 | \$ 238,640 | Chain of Lakes Stormwater Retrofit Assessment Best Management Practices | Through a partnership with the Chisago Lakes Lake Improvement District (LID), the Chisago SWCD has completed the subwatershed assessments for the communities of Center City, Lindstrom and Chisago City, all within the Chisago Lakes Chain of Lakes watershed. In total, 178 catchments (small watersheds) were identified and modeled using P8 modeling as part of the subwatershed assessments process. Through this process it has been calculated that more than 500 lbs/year of total phosphorus, 150,000 lbs/year of total suspended solids and 450 ac-ft of water/year is entering the Chisago Lakes Chain of Lakes through untreated stormwater runoff. By installing all the BMPs associated with this application, the pollutant loading can be reduced by 30 pounds of phosphorus and 24,000 pounds of sediment per year. The volume and rate at which water reaches the lakes will be reduced by 16 acre-feet o per year. |

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| 39 | Anoka | Anoka Conservation District | \$ 143,522 | \$ - | Typo and Martin Lakes Rough Fish Barriers | This project is aimed at addressing water quality impairments in Typo Lake, Martin Lake, the Sunrise River, and the St. Croix River by controlling carp with strategically placed barriers and commercial harvests. This project will improve water quality in Martin and Typo Lakes Recycling of phosphorus and increased turbidity from lake sediments disturbed by large populations of rough fish have been identified as a major source of water quality impairments in these headwaters lakes. |
| 40 | Olmsted | Olmsted SWCD | \$ 59,298 | \$ 59,298 | Flow and Sediment Reduction using Targeted Conservation Practice Installation | The Whitewater and Zumbro Rivers are impaired for turbidity. The Whitewater river is a valuable cold-water trout fishery. These BMP's will be targeted to actively eroding gullies in the Zumbro and Whitewater River watersheds. Installation of these grade control, and water and sediment control basin projects will reduce sedimentation to these streams by an estimated 65 tons per year. Using LiDAR mapping and aerial photo interpretation these sites are identified looking at soils, slope and downstream protection of water resources. |
| 41 | Chisago | Chisago SWCD | \$ 84,400 | \$ 84,400 | St. Croix River Escarpment Gully Stabilization Implementation Program | The St. Croix River is of state significance for its national designation as a Wild and Scenic Riverway. Lake St. Croix is impaired for nutrient enrichment and the draft TMDL has a 20% reduction in phosphorus loading as a goal. In 2011, the Chisago SWCD received CWF dollars to inventory the active gully erosion sites along the St. Croix River escarpment from the Wild River State Park entrance south to the County line. The goal of the inventory was to identify landowners with active gully erosion sites on their property and begin developing a plan to implement BMP's to correct the problem. This project is designed to implement restoration activities at those identified sites and capture and slow down runoff water to stabilize the sites and keep the soil on the land. |
| 42 | Carver | Carver SWCD | \$ 95,950 | \$ 63,350 | Hydes Lake Nutrient Reduction Project | The purpose of this project is to reduce the nutrient loading into Hydes Lake in Carver County. A TMDL report and implementation plan were approved for Hydes Lake for excess nutrients with findings of these studies indicating that nearly 81% of the external nutrient loading is coming from the direct subwatershed and the Patterson Lake sub-watershed. This project will focus on installing soluble phosphorus treatment devices and completing shoreline restorations. |
| 43 | Douglas | Douglas SWCD | \$ 133,939 | \$ 133,939 | Upgrade of Existing Noncompliant Liquid Manure Storage Facility | A soils investigation conducted during the summer of 2010 confirmed the existing Liquid Manure Storage Area is a threat to groundwater because of the sandy soil and high water table and must be properly closed to be compliant with MN rules chapter 7020. In addition to potential groundwater contamination, the farm is within 1000 feet of Lake Milona. There are also ten homes located on the shoreline across the road which use groundwater as their drinking water source. A new manure containment structure and reshaping of an adjacent lot will prevent manure contaminated water from entering the groundwater and improve waste management treatment on the site. |
| 44 | Kandiyohi | Middle Fork Crow River Watershed District | \$ 120,000 | \$ 120,000 | MFCRWD Shoreland and Stream Bank Restoration/Stabilization Program | This Project contains several activities that continue the implementation of urgent, visible and effective BMPs on multiple water bodies, with a focus on reducing the erosional processes impacting bank stability. Three initiatives will be implemented, including the installation of four shoreland restoration/stabilization projects on two lakes, completion of two stream bank stabilization projects on the Middle Fork Crow River, and a rain barrel program coupled with an education program that provide outreach to lake and city residents throughout the Middle Fork Crow River Watershed about the issues and water quality effects associated with stormwater. |

| Row | County | Applicant | Amount Requested (\$) | Amount Recommended (\$) | CWA Title | Project Description |
|-----|----------|--|-----------------------|-------------------------|--|---|
| 45 | Red Lake | Red Lake County SWCD | \$ 120,000 | \$ 120,000 | Accelerated Erosion Control Projects in the Red Lake River Watershed | Red Lake County SWCD conducted an Erosion Site Inventory during the winter of 2009. The results were prioritized and are being addressed in order of importance. Red Lake County SWCD would like to focus on this problem area in Gervais Township Section 7 & 8, from the list of 17 identified in the Red Lake River Watershed, because it is the highest sediment contributor. This project was given high priority because of the DNR sturgeon restoration project taking place in the Red Lake River, domestic supply use of the water source (City of East Grand Forks), the sediment/turbidity impairment, and its recreational use. Initial estimates are that this site contributes approximately 2,200 tons of sediment to the Red Lake River each year. |
| 46 | Becker | Becker Soil & Water Conservation District | \$ 42,160 | \$ 42,160 | Buffalo-Red Watershed Sediment Reduction Project | The Buffalo-Red River Watershed District was selected as a pilot and is currently conducting a watershed wide TMDL plan. The Becker SWCD has been inventorying possible sites for installing water and sediment basins in the Buffalo-Red River Watershed for several years and compiled a site list. A Erosion and sedimentation have been identified as a high priority issue in the Buffalo-Red River Watershed District (BRRWD) through the Becker County Local Water Management and Plan and the BRRWD Management Plan. Agricultural is the dominant land use in the watershed which has been identified as a contributor to the erosion/sedimentation issues where farming practices could be improved. Installation of practices in this area are estimated to keep 975 tons of sediment and over 1,100 pounds of phosphorus out of the Buffalo River annually. |
| 47 | Cook | Cook Soil and Water Conservation District | \$ 34,978 | \$ 34,978 | City of Grand Marais Stormwater Management Implementation Projects | Cook County SWCD is partnering with the City of Grand Marais to reduce the stormwater footprint on Lake Superior by proposing to construct 2 rain gardens with the help of Clean Water Funds. With the funding from a Minnesota Lake Superior Coastal Program (MLSCP) grant, Cook SWCD has rain garden designs shovel ready. Cook SWCD is working together with the City of Grand Marais to treat stormwater and reduce peak flows to Lake Superior to improve water quality. Cook SWCD's water plan states that the water quality and quantity concerns related to residential development include increased runoff from impervious areas (roads, parking areas, roofs, etc.). |
| 48 | Dakota | Vermillion River Watershed Joint Powers Organization | \$ 244,000 | \$ 244,000 | Grade Control Structure and Infiltration to Prevent Erosion to Mississippi River Gully | The Mississippi River and Spring Lake are both identified as high priority waters and are seen to be of significance for restoration and TSS/Turbidity reduction as identified in the South Metro Mississippi River TMDL (draft). Water from an area in and near the interchange of US Highway 52 and MN Highway 55 spills onto a steep bluff face at the head of a ravine. This has accelerated the head cut and ravine development. A grade control structure would take the water from the top of the bluff and drop it to the bottom of the bluff, thereby eliminating further erosion of the bluff face and existing head cut. Infiltration will be increased by installing a weir structure on the upstream end of the culvert to retain water. Ponds will be installed to discourage scour at the bottom of the grade control structure, settle additional sediments, and promote additional water retention. This was determined to be the most effective and inexpensive solution to address the erosion and sediment issue and is estimated to reduce sediment by 82 tons/year. |

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| 49 | Becker | Becker Soil & Water Conservation District | \$ 61,648 | \$ 61,648 | Bejou, Shoe and Dahlberg Lakes Sediment Reduction Project | In 2009, the Cormorant Lake Watershed District had an Environmental Assessment and Engineering Study completed for the West Side of Bejou Lake to address water quality issues that had been identified by Aerial Environmental Surveillance. It was determined that significant amounts of sediment was being deposited into Bejou Lake from the 84 acre adjacent watershed. Bejou, Shoe and Dahlberg lakes are located in the upper reaches of one of the most popular fisheries in the region, this being the Cormorant Lakes chain. Sediment and erosion control basins are an accepted practice that restricts water movement down a slope. Installation of these practices would reduce sediment and nutrient inputs to these headwaters lakes by 670 tons of sediment and 775 pounds of phosphorus each year. |
| 50 | Ramsey | Capitol Region Watershed District | \$ 150,000 | \$ 150,000 | The Highland Ravine Stabilization and Restoration Project | The Highland Ravine is a large bluff area in central Saint Paul, MN that includes steep gullies and woodland areas that have become highly eroded due to hydrologic changes associated with urban development over time. During precipitation and snowmelt events, runoff and sediment is transported down slope from the North Gully and South Gully onto private residential properties causing significant flooding and sedimentation. Additionally, sediment-laden stormwater from the gullies is conveyed to the Saint Paul storm sewer system which discharges directly to the Mississippi River. Stabilizing and restoring Highland Ravine will prevent future flooding, erosion, and sedimentation to local properties and improve the quality of stormwater being conveyed to the Mississippi River by reducing sediment and total phosphorus loads from the Ravine. The 13-mile section of the Mississippi River located in CRWD is part of the National Park Service's Mississippi National River and Recreation Area and has other local parks on its banks. The Mississippi River is listed as impaired for nutrients, turbidity, bacteria, and other pollutants on EPA/State 303(d) list. |
| 51 | Steele | Steele County | \$ 36,650 | \$ 36,650 | Owatonna Parks Rain Gardens | The City will install 4 rain gardens in City of Owatonna parks to provide water quality treatment for stormwater runoff. Rain gardens will incorporate under drainage as needed, biofiltration median and rain garden plantings. The rain gardens will be located on a City land and will provide runoff pretreatment and water quality volume of 11,100 CF that is designed to remove approximately 6.6 lbs. of TP and 2,265 lbs. of TSS annually. |
| 52 | Washington | South Washington Watershed District | \$ 82,510 | \$ 82,510 | Trout Brook Watershed Restoration | The Trout Brook Watershed Restoration project will help restore and protect two unique resources in southern Washington County--Trout Brook and Lake St. Croix. Already completed work has identified the 100 sites in southern Washington County that contribute the most to the existing excess nutrient impairment of Lake St. Croix. Twenty two of those sites are in the Trout Brook watershed. This project will implement up to 10 of the identified BMPs through public-private partnerships. It is estimated that this project will reduce annual loading from the Trout Brook watershed by 29.1 pounds of phosphorus, 23.6 tons of suspended solids, and 52.2 tons of sediment. |
| 53 | Benton | Benton SWCD | \$ 163,639 | \$ 163,639 | Little Rock Lake TMDL Phosphorus Reduction Project | Little Rock Lake, located in Benton County, is severely impaired for nutrients. This project kicks off the implementation strategies outlined in the TMDL implementation plan through a coordinated effort with Benton and Morrison SWCD's and NRCS, the Little Rock Lake Association, the poultry and livestock industry and other partners. Best Management Practices included in this watershed application include livestock exclusion, streambank stabilization, lakeshore restorations, nutrient management demonstrations and others. |

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| 54 | Chisago | Chisago Soil & Water Conservation District | \$ 171,800 | Partial funding of \$16,395 not adequate to complete project. | Pleasant Hill Park Stormwater Retrofit (Lindstrom Stormwater Retrofit Catchment L20) | The City of Lindstrom has identified the subwatershed that includes Pleasant Hill Park as a high priority for stormwater Best Management Practices (BMPs) due to the high volume of untreated stormwater that discharges directly into South Lindstrom Lake. This 66 acre catchment receives runoff water from residential, commercial downtown and light industrial areas. An assessment was completed for the City of Lindstrom in 2010. P8 Urban Catchment Modeling was used to determine the pollution loads and associated reductions based on installed BMPs. A list of the "Top Catchments" was defined at the end of the Assessment. |
| 55 | Becker | Becker Soil & Water Conservation District | \$ 33,095 | \$ 16,395 | Continuation of the Hay Creek/Stinking Lake Sediment Reduction Project | This project will continue the successful efforts of erosion and sediment reduction in the Hay Creek Watershed to improve the water quality of Stinking Lake through the installation of water and sediment control basins and buffer strips adjacent to Hay Creek and throughout the Hay Creek watershed. Three landowners have been identified to install 17 water and sediment control basins in 2012 with 11 of the basins being near the entrance of Hay Creek into Stinking Lake. |