One Watershed, One Plan

State Strategies

Purpose: BWSR's vision for *One Watershed, One Plan* is to align local water planning on major watershed boundaries with ***state strategies*** towards prioritized, targeted and measurable implementation plans. There are many state strategy documents in Minnesota that are related to water resource issues, with no existing document that summarizes them. The purpose of this document is to summarize these state strategy documents, and determine how they relate to the vision of *One Watershed, One Plan*. This document is intended to aid local government staff during initial planning phases of local *One Watershed, One Plan(s)*, in order to help planning partners align implementation plans with state strategies.

Minnesota Board of Water & Soil Resources

October 19, 2015

CLEAN WATER LAND & LEGACY AMENDMENT

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NON-POINT PRIORITY FUNDING PLAN

Board of Water and Soil Resources, 2014

Description: Sets forth: high level state priorities for investing Clean Water Fund implementation funding; high-level keys to implementation; criteria for evaluating proposed activities for purposes of prioritizing nonpoint funding; and estimated costs for implementing nonpoint activities.

Relation to *One Watershed, One Plan*:

- Keys to implementation for successful achievement of clean water goals in the NPFP are: accelerate *watershed-scale* implementation, *prioritize* and *target* at the watershed scale, *measure* results at the watershed scale, utilize science-based information, build local capacity, maximize existing laws and regulations, support innovative non-regulatory approaches, and integrate hydrologic management systems into watershed plans. These keys to implementation in the NPFP align with the goals of *One Watershed, One Plan*.
- Having "locally *prioritized* and *targeted*" activities at the watershed scale and having the capacity to produce "*measurable* effects" are among nine other criteria that are used to evaluate proposed program or project activities.

Visit: http://www.bwsr.state.mn.us/planning/npfp/NPFP%20Final.pdf

MINNESOTA'S NONPOINT SOURCE MANAGEMENT PROGRAM PLAN

Minnesota Pollution Control Agency, 2013

Description: Includes a comprehensive inventory of nonpoint issues affecting rivers, streams, lakes, groundwater and wetlands, with high-level priority strategies for each, often including specific practices.

Relation to *One Watershed, One Plan*:

- Details non-point source (NPS) policies, laws, regulations, programs, and knowledge to guide policy and decision making on NPS water pollution issues in the coming years.
- Presents opportunities to representatives of federal, state, local, and private organizations to develop Action Plans recommending their priorities for the future. These priorities may be incorporated into a *One Watershed, One Plan*.
- Identifies primary NPS funding sources.
- Statewide action plans with goals, milestones, timelines, funding sources and lead agency responsibilities are provided in this plan for each of the following water resources: groundwater, lakes, rivers and streams, and wetlands. Action plans are also included for monitoring, information and education, feedlots, agricultural erosion, agricultural nutrients, pesticides, urban runoff, forestry, subsurface sewage treatment systems, and effects of atmospheric pollution on water quality.

Visit: http://www.pca.state.mn.us/index.php/view-document.html?gid=19810

SEDIMENT REDUCTION STRATEGY FOR THE MINNESOTA RIVER BASIN AND SOUTH METRO MISSISSIPPI RIVER

Minnesota Pollution Control Agency, 2015

Minnesota Pollution Control Agency

Description: Includes strategies for achieving major reductions in sediment loading from the Minnesota River Basin and significant reductions from the South Metro Mississippi Watershed to meet TMDLs, including interim reduction goals for the next 15 years. Recommended land use changes are practices that reduce sediment loading.

Relation to *One Watershed, One Plan*:

- WRAPS and *One Watershed, One Plan* will be developed at the major watershed scale as a part of the Watershed Approach. These documents should be developed to protect and restore local water resources as well as to achieve nutrient and sediment reductions. The nutrient strategy provides these milestones for nutrients and the Sediment Reduction Strategy document provides them for sediment.
- Outlines general strategies and actions for local watershed managers to utilize in the development of an individualized action plan that will meet their sediment reduction goals.
- BMP Scenarios were modeled in the Mississippi River Basin to determine which BMP scenarios would meet the 80-90% sediment reduction goal. These scenarios may be leveraged in the creation of a *One Watershed, One Plan*.
- Priority Initiatives identified: Reduce peak flow magnitude and duration, reduce two-year annual peak flow by 25% by 2030, decrease number of days the two-year peak flow is exceeded by 25% by 2030, set water storage goals by watershed, define effective water storage practices, consider hydrology and downstream waters in local watershed planning efforts, provide funding assistance for design and implementation of water storage options in priority watersheds, increase living cover, combine state and federal funding for CPR-RIM partnership for water storage.

Visit: http://www.pca.state.mn.us/index.php/view-document.html?gid=20703

MINNESOTA NUTRIENT REDUCTION STRATEGY

Minnesota Pollution Control Agency, 2014

Minnesota Pollution Control Agency

Description: Identifies phosphorus and nitrogen load reductions, including loads to downstream watersheds within and beyond Minnesota impacting Lake Superior, Lake Winnipeg, and the Gulf of Mexico hypoxia zone. Includes agricultural management practices that:

- Account for natural levels and historical buildup of phosphorus in the soil;
- Keep soil erosion in check;
- Reduce nitrogen application rates;
- Increase vegetative cover during spring and fall months through perennials and cover crops;
- Trap and treat tile water on site to reduce the amount of nitrogen transported offsite.

Relation to *One Watershed, One Plan*:

- One goal of the Nutrient Reduction Strategy is to further focus on the efforts of existing state-level plans and strategies for MN water issues, especially those addressing nutrients, thereby supplementing and coordinating among these other plans.
- Watersheds are *prioritized* on a statewide basis relative to nutrient loads and impacts, and implementation activities are *targeted* to ensure efficient use of resources.
- Water quality evaluations rely on efforts to complete statewide water quality modeling, such as HSPF. Modeling efforts may be leveraged in *One Watershed, One Plan*.

Visit: http://www.pca.state.mn.us/index.php/view-document.html?gid=20213

NITROGEN FERTILIZER MANAGEMENT PLAN

Minnesota Department of Agriculture, 2015

Description: Highlights preventing and mitigating groundwater contamination from nitrogen fertilizer. Includes statewide and regional nitrogen fertilizer best management practices focusing on the type of nitrogen fertilizer and the rate, timing, and method of application to cropland.

Relation to *One Watershed, One Plan*:

- Mitigation effects are prioritized and rely heavily on voluntary BMPs, intended to engage local communities in protecting groundwater from nitrate contamination.
- BMPs for nitrogen fertilizer have been developed, revised, and promoted to aid in producing measurable results.
- Partnerships with other agencies and stakeholders have been developed and strengthened.
- A general approach to implement the local response activities outlined in the NFMP has been extensively tested and refined at a number of locations, particularly in source water protection areas. This assists with *One Watershed, One Plan* goals of targeting and tailoring.

Visit: http://www.mda.state.mn.us/~/media/Files/chemicals/nfmp/nfmp2015.pdf

(DRAFT) GROUNDWATER MANAGEMENT PROGRAM STRATEGIC PLAN

Department of Natural Resources, 2013

Description: Ensures that permitted groundwater appropriations do not adversely impact aquifer water quality or threaten trout streams, calcareous fens, and other groundwater-dependent biological communities.

Relation to *One Watershed, One Plan*:

- DNR and public partners will begin to collect additional information and engage in new collaborations—for example, focusing on groundwater management areas—necessary to support sustainable groundwater management. This new data and these collaborations will be used during data aggregation for *One Watershed, One Plan*.

- Strategies to accomplish goals: 1) Heighten priority given to groundwater management, 2) improve information available for groundwater management decisions, 3) improve the management of groundwater appropriation permits, 4) improve compliance with groundwater appropriation regulations, 5) improve communication and education for users, stakeholders, partners, and the general public about the importance of groundwater resources and the challenges facing groundwater management, 6) effectively address groundwater management challenges in areas of high groundwater use and/or limited groundwater supply, and 7) promote the use of groundwater and the implementation of water conservation practices.
- During the development of *One Watershed, One Plan*, Strategy #1 may impact plan prioritization activities, Strategy #2 may impact data aggregation during plan development, and Strategy #5 may aid in plan implementation.

Visit: http://files.dnr.state.mn.us/waters/gwmp/gwsp-draftplan.pdf

MINNESOTA PRAIRIE CONSERVATION PLAN

Department of Natural Resources, 2011

Description: Minnesota's conservation partners in the Prairie Region of the state collaborated to develop a twenty-five year strategy for accelerating prairie conservation.

Relation to *One Watershed, One Plan*:

- Strategic coordination in the plan will prevent potential duplication of efforts, missed opportunities, and the confusion that could stem from conservation entities pursuing their own plans independently.
- Scaled conservation: Identifying geographically large core areas, narrowing in to corridors to connect core areas, and narrowing further still to corridor complexes within the corridors.
- A number of state, federal, and private programs will play important roles in implementing this plan. The activities each program will engage in are detailed (Table 8). The acreage goals are also summarized (Table 9).
- Effectiveness measures for restoration and enhancement activities are included as part of the plan to determine how well the activities are working.

Visit: http://files.dnr.state.mn.us/eco/mcbs/mn_prairie_conservation_plan.pdf

FISH HABITAT PLAN

Department of Natural Resources, 2013

Description: Describes principles of protecting and restoring water quality to provide habitat necessary for biological communities. Identifies focal areas of the state for implementing water quality focused habitat protection.

Relation to *One Watershed, One Plan*:

- This plan recognizes the importance of watershed management to fish habitats.
- The Section of Fisheries focuses on both protection and restoration, and will strive to direct approximately 60% of habitat management resources towards protection and 40% towards restoration efforts.
- Plan calls for increased coordination between the Section of Fisheries and a variety of partners, both within and external to the DNR.
- The plan draws together a portfolio of existing plans and reports that provide strategic direction, guidance, and performance measures regarding Minnesota's aquatic resources.
- Fish habitat objectives include defining landscape level work areas, prioritizing lakes within the work areas, choosing projects, engaging partners, education and outreach, tracking results (outcomes of habitat project activity should be quantifiable and long-term monitoring is needed to observe effects of protection/restoration), influencing natural resource policy, and learning from and adapting the implementation process. A suite of implementation strategies has been developed for each objective.
- Aquatic habitat protection and restoration is prioritized through the lakes framework (based on stresses to the lake from near-shore disturbance and land use in the watershed), and the stream framework (centered around the index of biological integrity (IBI)).
- Protection, enhancement, and restoration goals will be tailored to specific ecoregions.

Visit: http://files.dnr.state.mn.us/fish_wildlife/fisheries/habitat/2013_fishhabitatplan.pdf

SHALLOW LAKES PROGRAM PLAN

Department of Natural Resources, 2010

Description: The goal in the Shallow Lakes Plan is to protect and manage at least 1,800 shallow lakes in Minnesota for their ecological, recreational, and economic importance to the citizens of the state, with particular emphasis on wildlife and wildlife-based recreation. The goals for management and protection of shallow lakes have been identified in order to: meet the objectives in the Minnesota Department of Natural Resources' (DNR) Long Range Duck Recovery Plan (Duck Plan) and Division of Fish and Wildlife Strategic plan, and provide clearer focus for shallow lake management efforts undertaken by the DNR Section of Wildlife Management.

Relation to *One Watershed, One Plan*:

- Plan objectives are aimed at managing those basins with high wildlife management potential and maximum wildlife and public benefit.
- The plan describes how multiple impacts to shallow lakes necessitate the need for active management of aquatic habitats and watersheds for wildlife and waterfowl.
- The plan is a broad plan to guide wildlife management activities on shallow lakes over the next 45 years, but also provides short-term implementation targets and evaluation of habitats and management.

Visit: http://www.dnr.state.mn.us/wildlife/shallowlakes/index.html

LONG RANGE DUCK RECOVERY PLAN

Department of Natural Resources, 2006

Description: This plan describes methods to accomplish 1) increasing the state's average breeding duck population from 636,000 to 1 million birds producing a fall population of 1.4 million birds from Minnesota by 2056, and 2) protecting 2 million acres of duck habitat.

Relation to *One Watershed, One Plan*:

- Focuses on current acquisition and easement programs employed by state and federal agencies;
- Describes protecting and restoring wetlands and grasslands and protection and enhancement of on-going management of 1,800 shallow lakes across Minnesota;
- Describes how models will be used to track the duck population for results-productivity;
- Promotes outreach to introduce youth to waterfowling.

Visit: http://files.dnr.state.mn.us/recreation/hunting/waterfowl/duckplan_042106.pdf

LONG-RANGE PLAN FOR THE RING-NECKED PHEASANT IN MINNESOTA

Department of Natural Resources, 2005

Description: By the year 2025, stakeholders envision a Minnesota pheasant harvest averaging 750,000 roosters. This vision assumes a sufficient habitat base to support an average fall population of 3 million birds. High pheasant populations serve as an indicator of a healthier agricultural ecosystem.

- Strategies:
  - Protect, acquire, maintain, and improve reproductive and winter habitat;
  - Provide technical and financial assistance for private land management;
  - Encourage tax credits and incentives for developing or managing critical habitat.
- Actions:
  - Increase undisturbed grasslands by 330,000 acres by 2008;
  - Increase undisturbed grasslands by 1.56 million acres by 2025.

Relation to *One Watershed, One Plan*:

- Describes how Natural Resources Conservation Service and Soil and Water Conservation District staff report that a primary management goal of landowners enrolling in cropland-retirement programs is to increase pheasant numbers on their property. This relates to *One Watershed, One Plan* implementation objectives of increased land retirement.
- Emphasizes farm policy, conservation practices, and subsidies to achieve habitat and population goals.
- Meshes well with long-range plans for many other prairie and farmland wildlife species, as well as plans for conservation of grassland and wetland habitats.

Visit: http://files.dnr.state.mn.us/recreation/hunting/pheasant/pheasantplan_final2005.pdf

LONG-RANGE PLAN FOR WILD TURKEY IN MINNESOTA

Department of Natural Resources, 2006

Description: Provides a long-term vision for the wild turkey management program with specific actions for fiscal years 2006-2011 to produce a spring population of 75,000 wild turkeys and 35,000 spring hunting permits by 2011.

- Strategies:
  - Improve turkey habitat throughout the turkey range in Minnesota;
  - Leverage other funds to acquire turkey habitat in fee title or perpetual easement.
- Actions:
  - Establish native woody cover/shrub plantings with emphasis on winter fruit bearing species; Increase oak savannah and oak forest management;
  - Increase streamside corridor development and management of woody cover;
  - Annually acquire 20-50 acres of important wild turkey habitat.

Relation to *One Watershed, One Plan*:

- Describes how habitat management and land acquisition projects initiated for the benefit of wild turkeys have a positive impact on other wildlife species in Minnesota.
- Identifies information and education as a primary action.
- Describes how long-range planning objectives have been combined with specific actions and time lines to form an operational plan.
- Completed through multi-group cooperation: National Wild Turkey Federation (NWTF), Fond du Lac and Mille Lacs Bands of Ojibwe, White Earth Reservation, and the Great Lakes Indian Fish and Wildlife Commission.

Visit: http://www.sportsmenforchange.org/DNR%20Plans/long_range_turkey_plan_2007.pdf

MUSKIE AND LARGE NORTHERN PIKE LONG RANGE PLAN

Department of Natural Resources, 2008

Description: The purpose of the Muskie and Large Northern Pike Long Range Plan is to guide fisheries management of muskellunge and northern pike in Minnesota for the next 12 years. Management goals are to improve opportunities for trophy muskellunge and large northern pike, while also providing opportunities to harvest northern pike. This plan builds on the foundation of previous long range plans and incorporates the latest research and management experience.

Relation to *One Watershed, One Plan*:

- Developed with stakeholder input from angling interests, including six workshops, two roundtables, and public comment through the DNR website.
- Builds on the foundation of previous long range plans and incorporates the latest research and management experience.

Visit: http://files.dnr.state.mn.us/fish_wildlife/fisheries/plans/muskiepike_2020.pdf

TOMORROW'S HABITAT FOR THE WILD & RARE

Department of Natural Resources, 2005

Description: Minnesota's Comprehensive Wildlife Conservation Strategy (CWCS) is a strategic plan focusing on managing populations of species in greatest conservation need (SGCN).

Strategies:

- CWCS encourages conservation stakeholders to use information in the plan as a menu for action, to adopt and adapt to their unique interests and capabilities.
- CWCS identifies habitat loss and degradation as primary problem facing SGCN. Goals include: (1) stabilize and increase SGCN populations, (2) improve knowledge about SGCN, (3) enhance people's appreciation and enjoyment of SGCN.

Actions:

- Recommends conserving key habitats used by SGCN to conserve majority of Minnesota's wildlife.
- Approaches: (1) Provide information on distribution and abundance of species, (2) describe locations and conditions of key habitats and community types, (3) describe problems adversely affecting species, (4) describe conservation actions to conserve species, and (5) describe plans to monitor species and habitats.

Relation to *One Watershed, One Plan*:

- The CWCS is the product of a partnership of conservation organizations working together.
- The CWCS partnership encourages interested conservation stakeholders to use the information presented in the CWCS as a menu for action, to adopt and adapt to their unique interests and capabilities.
- Subsection profiles identify the goals, challenges, strategies, and priority conservation actions necessary to successfully manage SGCN over the next ten years.
- The call for a more prescriptive approach was balanced with the recognition that most management decisions are embedded in unique circumstances that often require local perspectives and local dialogue prior to implementation.

Visit:
http://files.dnr.state.mn.us/assistance/nrplanning/bigpicture/cwcs/chapters_appendix/tomorrows_habitat_toc.pdf

MINNESOTA WETLANDS CONSERVATION PLAN

Department of Natural Resources, 1997

Description: The purpose of the Minnesota Wetlands Conservation Plan is to guide stewardship of wetlands. The goal for wetland conservation in Minnesota is to maintain and restore the quality and diversity and increase the overall quantity of wetlands in the state, varying regionally in accordance with differences in the character and health of the wetland resource, in order to promote ecologically, socially, and economically sustainable communities.

Relation to *One Watershed, One Plan*:

- This plan is a voluntary initiative, created through the collaborative effort of a diverse group of experienced citizens, professionals, and state agencies.
- Strong and thorough local water plans and wetland plans (*prepared on a watershed-basis*) and local land use plans are essential for wetlands conservation in Minnesota, and this plan can support those efforts.
- This plan was a product of an interactive, "grass roots" planning process, bringing together science, citizen knowledge and experience, and land use conditions to create a plan that would have broad-based public and governmental support.

Visit: http://files.dnr.state.mn.us/eco/wetlands/wetland.pdf

STATEWIDE CONSERVATION AND PRESERVATION PLAN

University of Minnesota: Institute on the Environment, 2008

Description: The Final Plan of the Statewide Conservation and Preservation Plan provides a series of recommendations for addressing the critical issues and trends identified as having impacts or implications for Minnesota's environment and natural resources. The Plan identifies four priority drivers of change that negatively impact each natural resource, and, if addressed, would benefit the greatest number of natural resources:

- Land and water habitat fragmentation, degradation, loss, and conversion;
- Land use practices;
- Transportation;
- Energy production and use, and mercury as a toxic contaminant related to energy production.

The recommendations included in the Final Plan will prove useful to a wide variety of public and private entities. In particular, they will be used to help guide expenditures from the Minnesota Environment and Natural Resources Trust Fund.

Relation to *One Watershed, One Plan*:

- Planning, whether for transportation, energy, community development, water resources, agriculture, or forestry, should be integrated across all agencies and at a multijurisdictional scale.

Visit: http://www.lccmr.leg.mn/documents/scpp/statewide_plan/scpp_2008-07-08_final_plan_overview.pdf