



What's Working:

Conservation Project Planning & Promotion

February 2015

Site Selection

2013-2014 Information

When working to add habitat to existing complexes for waterfowl it is important to do so with an eye to what may be missing or in short supply. There must be permanent wetlands of high enough quality to provide food for migrating, molting, and brooding ducks. There must also be sufficient nesting cover, a few hundred acres of grassland may be enough to attract nesting hens, but more grassland, and in larger blocks is the key to decrease edge and help ensure nest success. Also focus on adding temporary and seasonal wetlands to build breeding pairs once adequate nesting habitat is available, as these additional basins can be critically important for broods and migration as well (Ray Norrgard, MDNR).



A “[Restorable Wetland Prioritization Tool](#)” developed by the Minnesota Natural Resources Research Institute in partnership with the Minnesota Pollution Control Agency is now available. This tool will aid individuals interested in wetland restoration or protection by:



- Predicting likely locations of restorable wetlands with a statewide restorable wetland inventory.
- Locating highly stressed areas most in need of water quality or habitat improvement.
- Prioritizing areas that already are or are most likely to result in high functioning sustainable wetlands.
- Identifying areas that will provide the greatest benefits in the form of water quality and habitat.
- Refining prioritizations with aerial imagery and available environmental data.

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- The [Minnesota Prairie Conservation Plan](#)  focuses on the restoration of prairie and wetland plant communities through coordination between federal agencies, state agencies and conservation organizations. The plan identifies core conservation areas and creates a vision of a connected landscape from Canada to Iowa.



2008-2012 Information

- We perform a thorough pre-application site investigation of all potential wetland restoration projects; including drainage investigations such as tile location, flow direction, size of intake(s), elevations, private and public systems etc. Part of the pre-application process is reviewing the site with a landowner. Good communication with the landowner and the neighboring landowner from the get-go prevents mistakes in the design and construction stage (Renville SWCD).
- When assessing funding priorities, Roadsides for Wildlife considers the following questions: which sites will provide the best grassland bird habitat (larger projects are usually better and our prime target area is within the pheasant range), which sites are publicly owned and likely to remain as long term investments, at which sites will road construction be completed within the funding cycle, and which applicants are likely to do follow-up maintenance (DNR Roadsides for Wildlife Program).
- Typically all sites come to us with erosion or stormwater issues. Doing a shoreline study helped us create a very good plan highlighting areas of erosion on McCarrons and Long Lake. This helped us target areas that we want to put money into to improve water quality (see photo - Ramsey Conservation District).
- The Metro Conservation District's Landscape Restoration Program subwatershed stormwater analysis is a rapid, relative investigation that identifies ideal locations of specific stormwater best management practices within the landscape. The analysis is performed on at least three levels of resolution that selects which subwatershed to address, which catchments within the subwatershed to work within and, finally, which sites within the catchments to site specific BMP's. Results of the study are expressed in terms of BMP life-cycle unit costs per pound of pollutant removed, or similar, in a report. This report identifies a list of "low-hanging fruit", essentially which catchments (and their specific sites) to focus initial stormwater work in. It considers the performance of any existing stormwater water quality treatment and conveyance infrastructure along with site-specific limiting effects on the placement, or modification of in-situ BMP's, of a myriad of BMP options within ponding, filtering and infiltrating designs. Estimates on existing annual loading, existing treatment efficacy and three levels of treatment are reported enabling the Local Governing Unit to plan for several years of retrofit options. This analysis is powerful in its ability to identify the highest value options for stormwater treatment within a subwatershed in terms of cost efficiency and its value towards various other planning efforts such as load allocation planning, capitol improvement and aesthetic-amenity planning within



cities. P8 and WinSLAMM are models that are used for this effort. The following video summarizes the project: http://www.metrocd.org/index.php?option=com_content&view=article&id=59&Itemid=66 (Shawn Tracy, Association of Metropolitan Soil and Water Conservation Districts).

- Each site is custom designed based on local ecotype, availability of seed, surrounding landuse, soil/moisture/aspect/slope, needs of the landowner, and cost. Salt tolerance and need for living snow fence are also considered where appropriate (DNR Roadsides for Wildlife Program).
- We meet with the owners and discuss what we are going to draw up for them. Keeping plans very detailed for easy reading (homeowners and contractors can bid off them). We use plants native to Minnesota (see photo). We highly recommend doing great prep work and not just the minimum (Ramsey SWCD).
- When planning a project it is important to consider the needs of wildlife species and how vegetation will influence their use. Grassland birds for example tend to have unique needs related to community structure. The following website is a good source of information about the requirements of wildlife species: www.npwrc.usgs.gov/resource/birds/wiscbird/.
- Sufficient Planning needs to be done to anticipate potential impact to a project from animals (carp, geese, muskrat, deer) or human use (Shawn Tracy, Association of Metropolitan Soil and Water Conservation Districts).
- A clear understanding of site stressors is needed to determine how project phasing should be conducted and what plant species are most appropriate for a project (Shawn Tracy, Association of Metropolitan Soil and Water Conservation Districts).
- Developing detailed project schedules for wetland projects has been very useful to ensure that all contractors and project staff understand the proposed process. Including project maintenance (for at least 3-years) as part of project plans is essential; when there is no commitment to maintenance projects often fail.
- It is important to consider maintenance requirements when selecting plant diversity levels. Increasing cool-season grasses and forbs can often decrease invasive species. Grass only mixes may allow for use of broad leaf specific herbicides but may be prone to Canada thistle invasion.
- Whenever possible it is important to have qualified contractors conduct all phases of the projects (site preparation, planting, maintenance).
- It is often important to combine different planting strategies for wetland projects (Seed, pre-vegetated mats, containerized plants, native seedbank, etc.). For example, seed may be used for vegetating the majority of a wetland project but containerized emergent plants or pre-vegetated mats may be used along the edge of open water to ensure establishment where hydrology levels are variable, and wave action may exist.
- The online Conservation Funding Guide is a useful resource to help landowners and assistance providers search different conservation funding programs and determine the best program to fix a resource

problem. The "compare payments" hyperlink allows users to see different programs, payment rates, and incentives that particular program have to offer:

www.mda.state.mn.us/protecting/conservation/funding.htm