

Minnesota Wetland Conservation Act



Discussion of Issues Related to the March 15, 2016 Report to the Legislature

February 3, 2016

Agenda

1. Welcome and introductions.
2. Meeting purpose/ground rules, statute changes, legislative report requirements, & rulemaking schedule.
3. Actions Eligible for Credit.
4. In-Lieu Fee Wetland Replacement.
5. Designation of High Priority Areas.
6. Discussion.

Purpose of Meeting

To discuss issues related to the March 2016 report.

- 1) Present information and ideas.
- 2) Obtain constructive feedback and alternative ideas.

Purpose of Meeting

➤ The purpose of the meeting is **NOT** to:

- X Re-hash or argue about statute changes or the rationale for them.
- X Present rule language or final proposals.
- X Discuss issues unrelated to the March report.

Note: Some background and understanding of previous discussions will be helpful.

Ground Rules

Please hold comments until time for discussion.

- ✓ Quick clarifying questions OK if time permits.
 - ✓ Raise your hand.
 - ✓ We may cut off questions/discussion to stay on track.
 - ✓ You can provide comments in writing and/or there will be further opportunities to participate/comment.
- ❖ Respect differing opinions - all perspectives are legitimate. In the end, the WCA policy goal is to improve outcomes for the public as a whole.

2011 Statute Changes

- Established DNR as a WCA Local Government Unit for wetland banking projects used for impacts approved under a permit to mine.
- Gave BWSR the authority to reduce fees for single use accounts and reduced the fees charged to mining banks.
- Allowed noticing and appeals via electronic transmission.
- Eliminated the requirement that wetlands be owned by the State or a local government to be eligible for preservation credit.

2011 Statute Changes (Cont'd)

- Eliminated separate notice of application standard for impacts <10,000 sq. ft.
- Modified the replacement wetland siting criteria (which was modified further in 2015).
- Eliminated the requirement for a local appeals process, established a process for the appeal of restoration orders, and increased decision validity from 3 to 5 years.

2012 Statute Changes

- Deed restriction made optional for wetlands impacted for ag use and replaced at 1:1 without sequencing.
- De minimis language re-organized, but requirements remained largely the same.
- Provided BWSR with authority to:
 - establish an ag exemption via an MOU with NRCS,
 - establish an ILF program (further clarified in 2015), and
 - assume implementation of federal 404 program.

2015 Statute Changes

- Identification and implementation of High Priority Areas
- Replacement Wetland Siting
- In-Lieu Fee Program
- New Actions Eligible for Credit in NE
- Wetland Replacement Approval Process
- "Rapid Response Team"
- Fees
- Others



Misc. 2015 Legislation

- Report to the legislature by March 15, 2016 on several preliminary implementation proposals.
- Study the feasibility of 404 assumption and report to the legislature by January 15, 2017.
- Requirement for continual stakeholder involvement process "to foster mutual understanding and provide recommendations" for WCA.

Siting of Wetland Mitigation in NE MN

- This report was the primary impetus for most of the 2015 statute changes.

Siting of Wetland Mitigation in Northwest Minnesota Issues, Recommendations, and Alternatives From the Interagency Northwest Mitigation Siting Team November 2011



- Interagency Northwest Mitigation Siting Team Members:
- Dan Smith, State of Minnesota (DNR)
 - Dan Kottler, State of Minnesota (DNR)
 - Doug Wirth, Department of Natural Resources, Fisheries and Water Resources Section
 - Mike Kucharski, Department of Natural Resources, Fisheries and Water Resources Section
 - Brian Farley, Public Outreach Agency
 - Kim Kottler, Pollution Control Agency
 - The State of North Dakota (Department of Natural Resources)
 - Doug Larson, U.S. Army Corps of Engineers (St. Paul District)
 - Barbara Peterson, U.S. Environmental Protection Agency
- The primary authors of the report are Dan Smith, Doug Wirth, and Dan Kottler.

Statute Changes

- See the BWSR website for details on the 2011, 2012, and 2015 statute changes:

www.bwsr.state.mn.us/wetlands

March 2016 Legislative Report

- ❖ Requirement of 2015 legislation.
- ❖ To committees with jurisdiction over environment and natural resources.

- 1) High Priority Areas
- 2) In-Lieu Fee Program
- 3) Wetland Replacement Siting
- 4) Actions Eligible for Credit

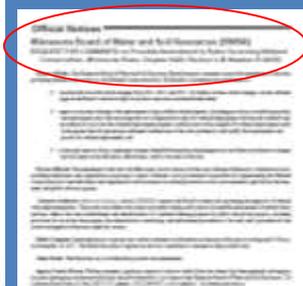
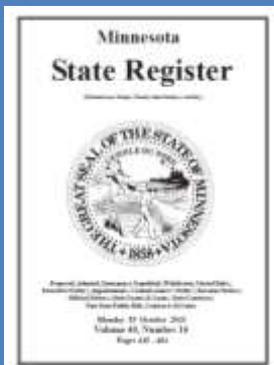
13

March 2016 Legislative Report

- Status and direction of implementation proposals.
- Concepts, not specific or final details.
- Identify potential issues with implementation.
- Separate from WCA Rulemaking, but will indicate general direction. The details will be ironed out through the rulemaking process.

14

WCA Rulemaking Began October 19.



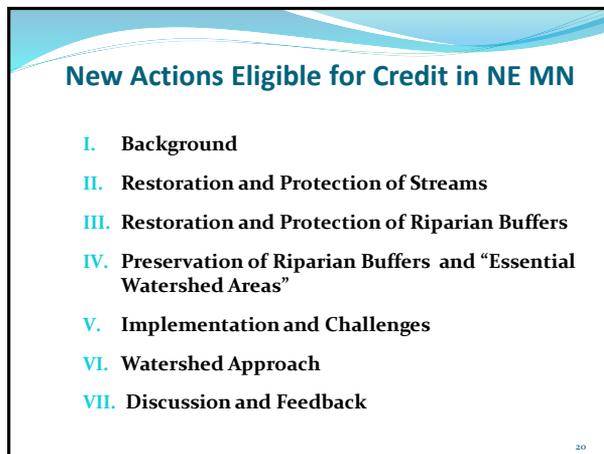
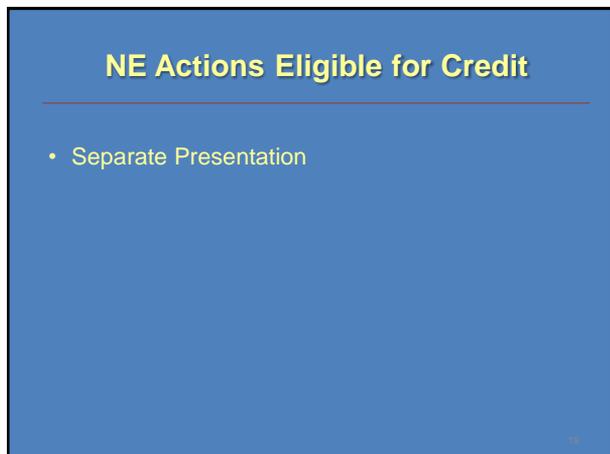
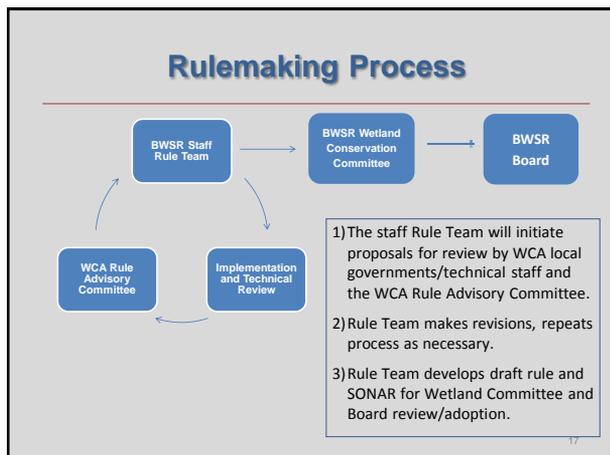
http://www.comm.media.state.mn.us/bookstore/stateregister/40_16.pdf

Scope of WCA Rulemaking



- 2011, 2012, & 2015 statute changes.
- Improve wetland replacement outcomes.
 - High Priority Areas and replacement ratios.
 - In-lieu fee wetland replacement program.
 - Actions eligible for credit in >80 percent areas.
 - Wetland replacement requirements and process.
- Other misc. changes to improve the efficiency, effectiveness, and/or outcomes of the rule.

15



Siting of Wetland Mitigation in Northeast Minnesota



Issues, Concepts, and Alternatives from the Interagency Northeast Mitigation Siting Team

See full report on BWSR website.

21

Siting of Wetland Mitigation in NE MN

Recommendation: *Alternative Options for Mitigation*

Allow mitigation credit for “non-traditional” resource improvement and protection options:

1. ***preservation of buffers adjacent to trout streams*** and other sensitive northeast streams.
2. ***buffer reforestation activities that improve shading, habitat, or water quality of trout streams*** and other sensitive northeast streams, including impaired streams with an established TMDL.
3. ***stream restoration projects*** that include such actions as re-meandering lost channels, stream bank stabilization, and day-lighting buried/piped streams.

22

NE Mitigation – 2015 Statute Changes

103G.2242, Subd. 12 Replacement Credits (c) ...“the following actions...are eligible for replacement credit....

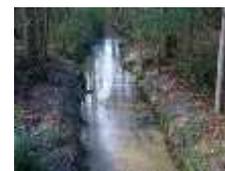
(5) *in a greater than 80% area, restoration and protection of streams and riparian buffers that are important to the functions and sustainability of aquatic resources.*

103G.2251 State Conservation Easements; Wetland Bank Credit.

In greater than 80% areas preservation of wetlands, ***riparian buffers, and watershed areas essential to maintaining important functions and sustainability of aquatic resources in the watershed that are*** protected by a permanent conservation easement....

23

Restoration and Protection of Streams



Degradation =
Restoration
Opportunities

Initial Consultations with MN Stream Restoration Experts

- **Dr. Sandy Verry**, (retired) Hydrologist, U.S. Forest Service (Grand Rapids, MN) Owner, Ellen River Partners.
- **Luther Aadland**, Minnesota DNR River Ecologist, Fergus Falls, MN.
- **Ian Chisholm**, Minnesota DNR River Ecologist and Stream Habitat Supervisor.

25

Stream Restoration Conceptual Process

- 1) **Problem/Symptom** - define and identify degraded stream or stream reach eligible to be restored for credit.
- 2) **Cause** - Identify the source(s) of degradation.
- 3) **Fix** - Identify the action(s) necessary to:
 - A. correct the problem,
 - B. remove the source of degradation, and
 - C. protect the stream from future degradation.

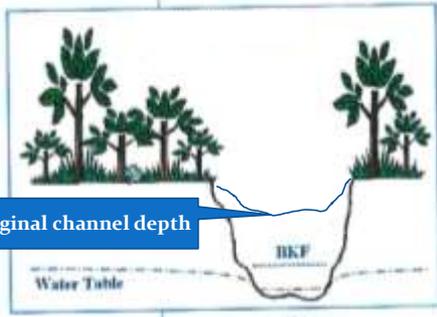
Common Stream Problems in NE MN (Types of Degradation)

- **Unstable Channel**
- **Incised Channel**
- Loss of **Floodplain Connectivity**
- **Aggraded Channel**
- **“Over-Wide” Channel**
- **Unstable Width-to-Depth Ratio** (due to human watershed impacts and alterations)
- Loss of Stream **Sinuosity**

27



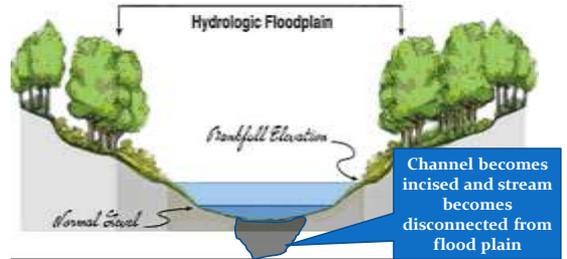
Stream Degradation:
Incised Channel



Original channel depth

29

Types of Stream Degradation:
Stream is disconnected from Floodplain



Source: Minnesota DNR

Stream Degradation:
Aggraded Channel



Excess sedimentation: Loss of fish, invertebrate habitat

Stream Degradation:
"Over-wide" Channel

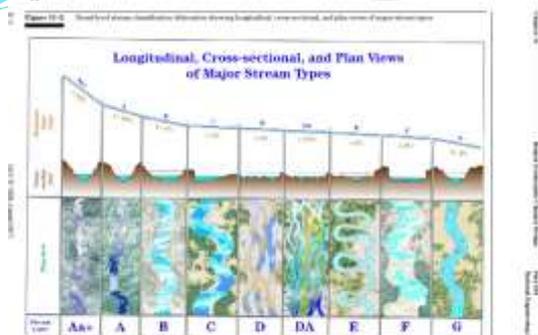
When stream channel is overwhelmed with sediment, streams become over-wide:

Loss of fish, invertebrate habitat



34

Problem: Unstable Stable Width to Depth Ratios



Each stream type has a stable width to depth ratio.

Problem: Loss of Stream Sinuosity

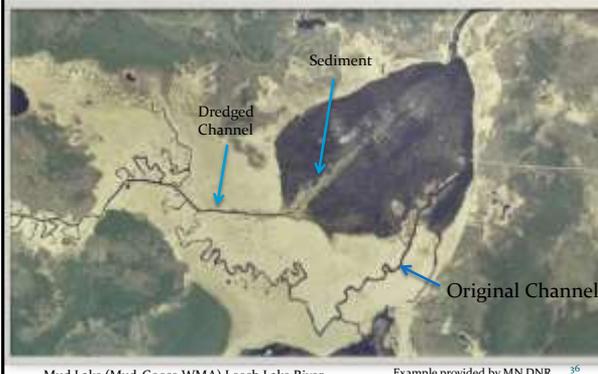
Mississippi River in Itasca County.
Channelized section resulted in loss of historic sinuosity of the river channel.



Common Causes of Stream Degradation

- **Channelization** of the stream itself.
- **Land-use in, and directly adjacent** to, the stream channel.
- **Land-use elsewhere in watershed** (changes to infiltration rates, timing and volume of runoff, etc).
- Any **combination** of the above.

Cause of Stream Degradation: Direct Channelization



Mud Lake (Mud-Goose WMA) Leech Lake River

Example provided by MN DNR ³⁶

Stream Response to Land Use Changes

Examples:

- Converting 1/2 watershed to agriculture would increase bank full flows by 20%.
- Converting 2/3 of watershed to agriculture would double or triple bank full flows (*causing significant impacts to stream form and function*).
- Combinations of open land and young forest (<15 years) can have similar effects.

Source: Dr. Sandy Verry, U.S. Forest Service (retired)

37

Loss of Stream Sinuosity

- Can be also be caused by watershed alterations:
 - Original logging only (*early 1900s*)
 - Stream clearing & logging (*recent*)
 - Catastrophic fire & agriculture
 - Urban development

(Verry)




Causes of Stream Degradation: Overgrazing




Water quality degradation, erosion and sedimentation, habitat loss

Cause of Stream Degradation: Lack of Stream Buffer - Agriculture




Cass County Clearwater County

Water quality degradation, erosion and sedimentation

40

Causes of Stream Degradation: Urban and Residential Land Use



Water quality, loss of shading, etc.

Land Use Changes – Impacts to Watersheds

Changes in the watershed –

i.e. increased impervious surfaces (parking lots, urban development) that reduce infiltration, increase the volume of runoff, and change the timing of runoff making it flashier and less stable

Urbanization within City of Duluth impacts Miller Creek



“Fixes”

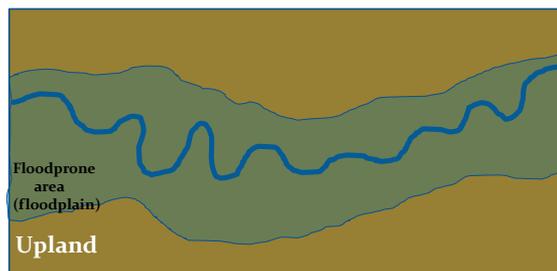
(Actions Necessary to Restore the Stream)

The actions necessary to restore a stream will vary. But in general, the corrective actions:

- Will require *expertise in fluvial geomorphology* to identify.
- ***Must be sustainable*** (i.e. multiple actions needed).
- Should restore and ***protect the meander corridor***.
 - *This corridor also has relevance for credit allocation and buffers (discussed later).*

Stream Landscape

- “A basic landscape with upland, flood prone area (usually the floodplain), and a stream.”



Meander Belt Corridor

- The area within which the stream channel will be allowed to meander over time.
- Should extend at least 25 ft. beyond outside meander bends and be a minimum width of 100' for small streams.

Meander Corridor
100' Minimum
(25' Minimum from outside bends)

Meander corridor should extend 25' beyond outside meander bends

Floodprone area (floodplain)

Upland

From: Wetland and Stream Banking in Perspective, Considerations for Minnesota - Elon "Sandy" Verry, (retired) Research Hydrologist, USDA Forest Service.

Meander Corridor (wetlands):

- Meander corridor with a wetland in part of the floodprone area.
 - NOTE - wetland may extend beyond both the meander corridor and the floodprone area

Meander Corridor
100' Minimum
(25' Minimum from outside bends)

Wetland may extend beyond meander corridor

Floodprone area (floodplain)

Upland

Wetland

From: Wetland and Stream Banking in Perspective, Considerations for Minnesota - Elon "Sandy" Verry, (retired) Research Hydrologist, USDA Forest Service.

Meander corridor - Example

Meander Corridor

Meander Corridor - Relevance to Restoration

- The stream restoration/protection area should always be wide enough to contain the meander corridor.
- Riparian buffers should extend at least 50' beyond the meander corridor.

Meander Corridor
100' Minimum
(25' Minimum from outside bends)

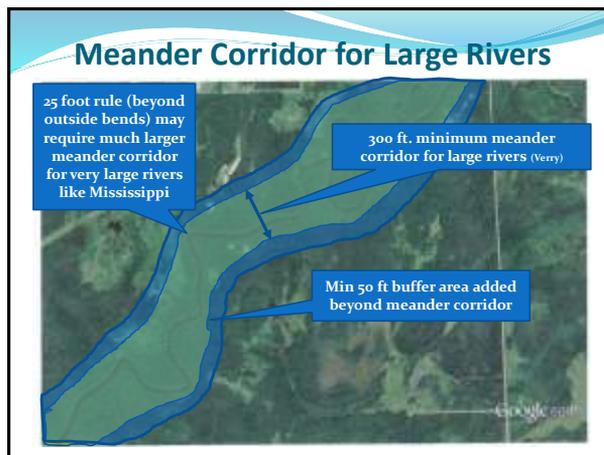
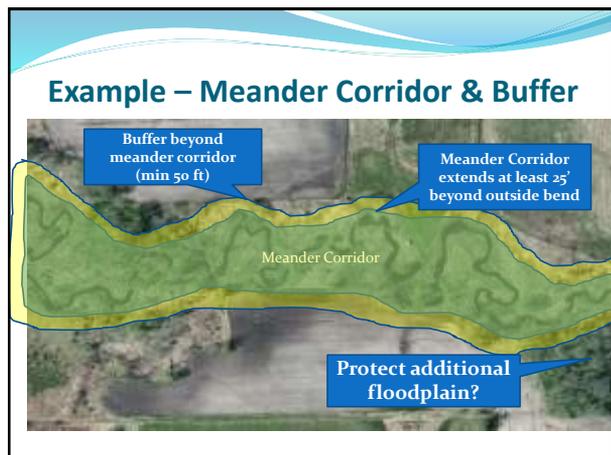
Buffer extends (50' min) beyond meander corridor

Floodprone area (floodplain)

Upland

Wetland

From: Wetland and Stream Banking in Perspective, Considerations for Minnesota - Elon "Sandy" Verry, (retired) Research Hydrologist, USDA Forest Service.



Stream Restoration Projects

Projects Should:

- A. Restore the stream,
- B. Correct the cause of the problem,
- C. Be sustainable.

Options to Allocate Stream Restoration Credit

- 1) Allocate credit based on the area of the floodplain or meander corridor (whichever is greater).
- 2) Develop broad scoring system that considers:
 - a) The current condition of the system (level of degradation).
 - b) How the proposed restoration actions will move (improve) the ranking.
 - c) Then assign credit based on the degree of improvement.

❖ Buffers and other actions would be allocated credit separately.

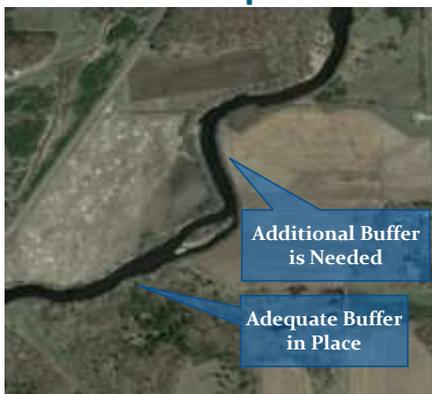
Stream Restoration Challenges

- How to allocate credit in a way that both:
 - Corresponds roughly to the *gain in aquatic resource function*.
 - Results in an *economically feasible* credit allocation.
- ID of projects will require *up-front watershed analysis/planning* and agency involvement.
- Causes of *degradation may often originate elsewhere in the watershed* (outside the project area).
- There will *often be multiple landowners* involved.

Stream Project Review Process

- **Stream Restoration Science is well established.** (*Rosgen, North Carolina Sea Grant, NRCS, Forest Service, DNR, etc.*)
- **Converting functional gains from stream restoration to wetland mitigation credit is not.**
- **Unique skillset is necessary for stream restoration.**
- **Greater agency involvement is needed up front.**
- **Opportunities and need for interagency cooperation.**

Restoration of Riparian Buffers



Riparian Buffer Loss or Degradation

Potential Source

- Conversion to Cultivation
- Lacking Forestry BMP's
- Development
- Mineral Extraction
- Over Grazing
- Catastrophic Event

Potential Effects

- Bank Instability (erosion/failure)
- Reduced infiltration
- Decreased flood storage
- Decreased water quality
- Channel Instability
- Impaired habitat(s)
- Increased Temperature

Restoration of Riparian Buffers

Restoration Goals:

- Restore native, non-invasive vegetation adjacent to the stream to the historic natural conditions.
- Remove roads, trails, other non-natural items.
- Repair erosion and/or stabilize bank.
- Area must be sufficiently sized.
- Must be sustainable.

Restoration of Riparian Buffers

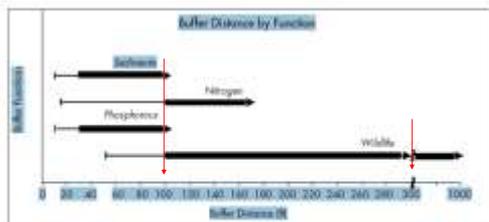
Issue: How much riparian buffer is required? Must consider pertinent functions and measurement location.

Options:

- 1) Set min/max widths based on available literature. For example:
 - Min 50 ft beyond stream meander corridor.
 - Min 100 ft from OHWL (ELI 2008-sediment, N, P, Wildlife).
 - Recommended 300 feet for wildlife (ELI 2008).
- 2) Use adaptive management techniques to determine min/max widths based on site specific factors.
 - Flexible and variable based on contributing watershed area/slope/condition/etc.

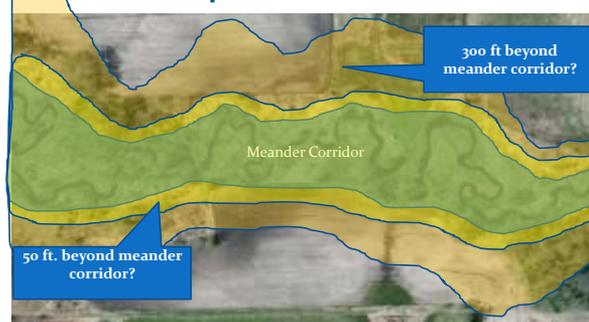
Set Buffer Width

Source: ELI 2008

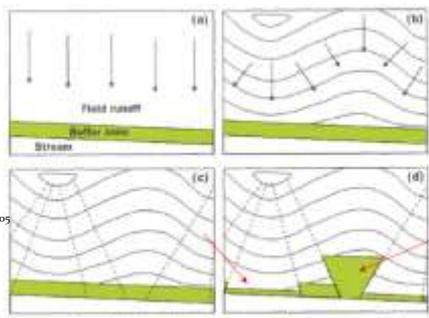


Effective buffer distance for water quality and wildlife protection functions. The thick arrow represents the range of practically effective buffer distances for each function as suggested in the science literature. The thick line represents the buffer distances that are most effectively accepted each function (50 - 100 feet for sediment and phosphorus removal, 200 - 150 feet for nitrogen control, and 200 - 300 feet for wildlife protection). Depending on the species and the habitat characteristics, effective buffer distances for wildlife protection may be shorter or longer.

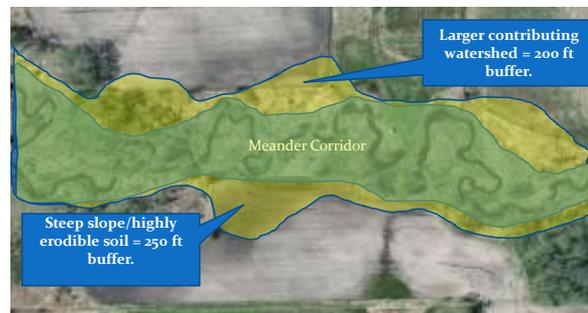
Example – Set Buffer Width



Buffer Width Research



Example – Site Specific Buffer Width



Buffer Credit Allocation

How should restored buffers be credited?

- Consistent with Current WCA 10-25%?
- Follow COE crediting for wetland vegetative enhancement up to 33 %?
- Other justification for credit?

Preservation of Riparian Buffers and Essential Watershed Areas



NE Siting Report

The report noted that:

- Activities on adjacent uplands negatively affect wetlands and other aquatic resources, including lake and river fringe wetlands.
- Protecting some of the area's shoreline habitats and sensitive upland areas should be a priority.

The report recommended allowing credit for protection of sensitive upland areas (headwaters, riparian areas, important wildlife corridors, etc).



Preservation of Riparian Buffers and Essential Watershed Areas

The mechanism and mitigation credit allocation process is largely in place (i.e. demonstrable threat/crediting).

Current Issue:

- Prioritize what resources should qualify under this action.
- Target areas within these priority resources where preservation projects will have the greatest sustainable benefits.

Preservation of Riparian Buffers and Essential Watershed Areas.

Potential Preservation Priorities:

- Wild rice lakes and streams.
- Cisco lakes.
- Critical Waterfowl Lakes
- Headwaters of designated trout streams and their tributaries.
- Groundwater recharge areas important for trout stream flow and temperature.
- Critical habitat for important or threatened species.
- White cedar riparian plant communities in shoreland areas.

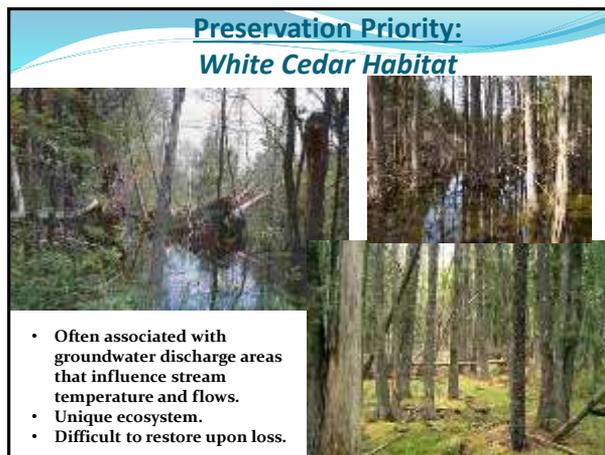
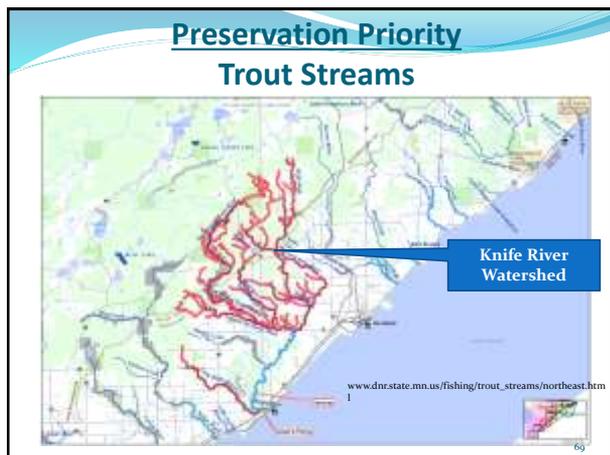
67

Preservation Priority Wild Rice Lakes & Streams

- Important wildlife habitat, food source (direct and indirect), economic industry, and cultural resource.
- Wild rice abundance and distribution has declined over time, especially in many of the smaller beds along the margins of lakes and streams.



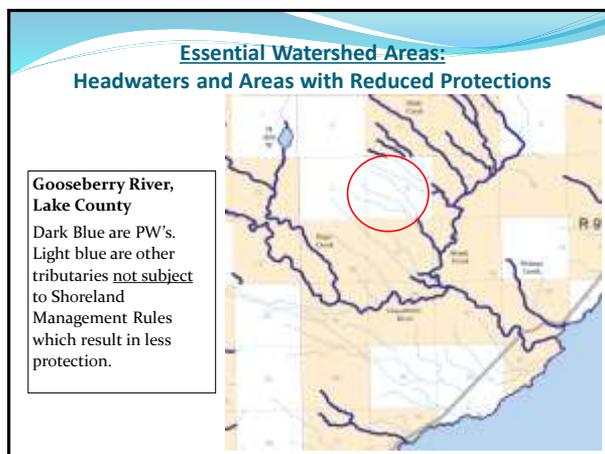
Source: MN DNR 68



Targeting Essential Watershed Areas: Where is preservation most important?

Potential Target:

- Upper watersheds (headwaters)
- Areas under increased development potential
- Stream reaches beyond PW classification
- Groundwater recharge/discharge areas
- Intermittent Streams
- Critical Habitats or Habitat Connections
- Other?



Watershed Plan Implementation Projects

From Siting of Wetland Mitigation in NE MN report:

- **Concept:** Approved watershed plans identify specific projects that benefit the overall ecological functioning of an aquatic resource.
- **Recommendation:**
“Allow compensatory wetland mitigation credit for the completion of certain approved watershed plan implementation projects.”

Watershed Plan Implementation Projects

- Projects must result in significant improvements to the function and/or sustainability of the aquatic resource.
- Must be identified in a plan. (TMDL implementation, resource management plan, watershed restoration, basin, local water plans, etc.)
- These items do not fall under other crediting actions.
- Most likely to be a component of a larger restoration/preservation project.

74

Watershed Plan Implementation Projects

Proposed implementation mechanism:

- Via In Liu Fee program based on framework and instrument approved by the Corps of Engineers.
- Projects chosen when necessary to complement stream restoration and/or other actions to address watershed issues.

Watershed Plan Implementation Projects

Example project types:

- Water quality improvement projects
- Site specific bank stability projects
- Stormwater treatment projects
- Other Best Management Practice implementation projects
- Other?

Northeastern Minnesota Compensation Study:
Alternative Wetland Mitigation Options



Presented by



TETRA TECH
141 Riverside Plaza, Suite 402
Soo, MN 55781

A member of
URS Corporation (NYSE:URS) 7500 Old Orchard Road
Chicago, IL 60630

US Environmental Protection Agency Report #
71-14-10000-100
Chicago, IL 60606

August 2010

**EPA Study
Identified
Potential
Projects**

77

Examples of Tetra Tech Report Projects:

- **Poplar River Watershed BMP's**– Series of road and trail projects identified that will reduce sediment load to an impaired trout stream.
- **Deer Creek** - Project identified to remove a sediment impoundment from a groundwater discharge point. Serves to reduce sediment loading and turbidity within an impaired trout stream.

78

Interagency Coordination Needed

- Stream restoration and watershed restoration projects are often complex:
 - Multiple landowners
 - Projects are costly
 - Watershed restoration approach
- Multi-agency projects?
 - *These projects will be conducive to completion through multiple agency/LGU cooperation and funding sources*

Watershed Approach



Successful implementation can require:

- Watershed approach & analysis.
- Multiple actions for project viability and sustainability.
- Proactive agency involvement and coordination.

Watershed Approach Handbook
Improving Outcomes and Increasing Benefits
Associated with Watershed and Stream Restoration and
Protection Projects



80

Example: TNC Watershed Approach Handbook

Five Elements when taking a watershed approach to wetland and stream restoration and protection:

1. *Identification of watershed needs, including a determination of how watershed needs identified by various regulatory and non-regulatory programs can inform the watershed approach.*
2. *Identification of desired outcomes, or the specific and usually measurable results desired in the future.*
3. *Identification of potential project sites, generally based on the ability of wetlands and streams to develop and persist in a particular location.*
4. *Assessment of potential sites to meet watershed needs, generally through analysis that ranks the relative ability ... to support particular ecosystem functions and services...*
5. *Prioritization of project sites based on their relative ability to sustain wetland characteristics and their ability to address watershed needs...*

81

SCALE – Finding the right scale

Snake River Watershed (St. Croix Basin)

Watershed Restoration and Protection Strategy Report

A summary of watershed conditions and restoration and protection strategies for the Snake River Watershed August 2014

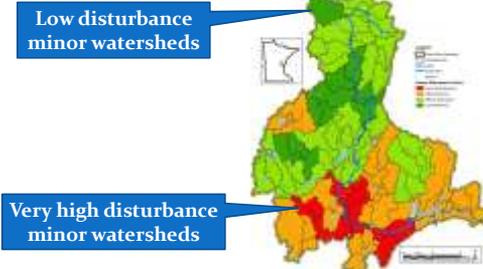


Figure 4. Human Disturbance scores in the Snake River Watershed.

Other Objectives related to Mitigation (Actions Eligible for Credit)

1. Increased consistency between State and Federal programs.
2. Better correlation between functional gain and credit allocation.
 - a. Increased focus on site selection and restoring historic hydrologic and vegetative conditions when appropriate.



2/5/2016 83

Buffers (an example)

Issues:

1. Minimum buffer requirements are often inadequate for protecting the wetland & its ability to function.
2. Lack of incentive to establish buffer in a way that best protects and enhances wetland function.
3. Inability to assign credit to buffer commensurate with functional gain.
4. Inconsistency between State and Federal Programs related to maximum allowable buffer for credit and credit amount.
5. Existing wetland as buffer.
6. Consistency between wetland mitigation buffers and new buffer law.



2/5/2016 84

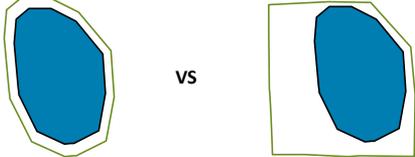
Potential Changes to Mitigation Buffers

(being discussed)



2/5/2016 85

Adopt rules and policies requiring a site-specific approach to determine minimum buffers (consider long-term sustainability and important functions).

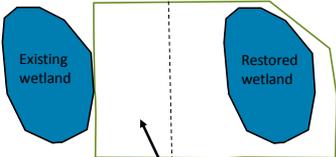


vs



2/5/2016 86

No limit on buffer receiving credit if it is required to sustain wetland functions & provide for enforceable easement boundaries.



Existing wetland

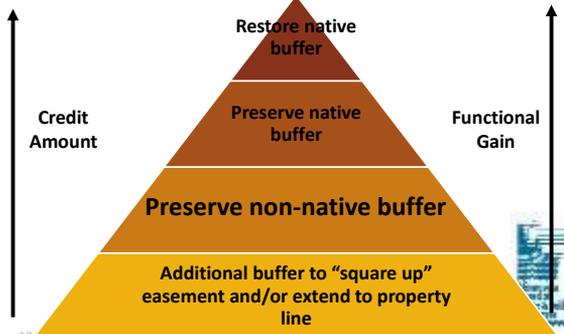
Restored wetland

Extra buffer required to encompass steep slope and/or connect to other wetland.



2/5/2016 87

Assign credit to buffers based on functional gain



Restore native buffer

Preserve native buffer

Preserve non-native buffer

Additional buffer to "square up" easement and/or extend to property line

Credit Amount

Functional Gain

2/5

Maximum Buffer Area Allowed for Credit

- Based on % of credits (Corps policy).
 - No more than 25% of the total credits from buffer.
- Based on area (WCA).
 - Buffer area cannot exceed wetland area.

Potential Proposal:

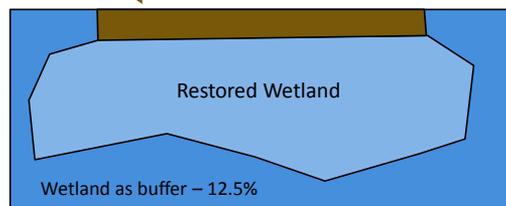
Determine minimum required first, then credit in accordance with functional gain provided by additional buffer.



2/5/2016 89

Allow wetland as buffer in certain circumstances, but adjust credit amount

Upland buffer 25%



2/5/2016 90

Adjust restoration credit in areas that cannot be buffered

Steep slopes on adjacent property

Less credit due to impacts over time.

Upland buffer 25%



2/5/2016 91

Coordinate with Buffer Initiative

- Consider using same or similar definition of buffer.
- Possible use of "buffer tool" being developed to determine appropriate buffer width and characteristics.
- Same minimum widths



2/5/2016 92

In Summary

- Looking to better coordinate programs; and
- Looking more closely at critical aspects of mitigation including siting, restoration goals and credit allocation commensurate with functional gain.



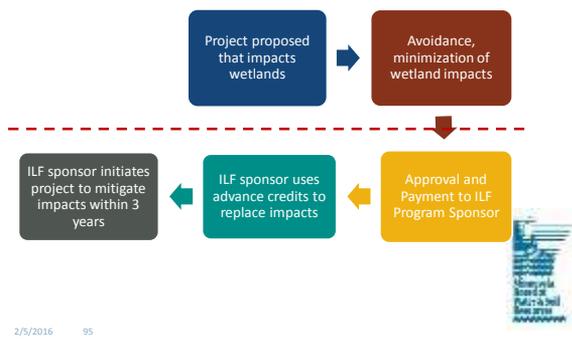
2/5/2016 93

In-Lieu Fee Wetland Replacement (Mitigation) Program



2/5/2016 94

What is In-Lieu Fee?



2/5/2016 95

2015 Statute Changes

Broadened In-Lieu Fee (ILF) Authority:

1. Statutory definition of ILF.
2. No longer restricted to agricultural impacts, >80% areas and Road Program.
3. Provided BWSR with needed authorities to establish and operate ILF.



2/5/2016 96

BWSR In-Lieu Fee Authorities

- Sub-set of banking program.
- Must conform with the federal mitigation rule.
- BWSR may:
 - acquire land in fee title
 - purchase or accept easements
 - enter into agreements
 - purchase existing wetland replacement credits
 - establish in-lieu fee payment amounts
 - hold money in an account in the special revenue fund solely for establishing replacement wetlands



2/5/2016 97

Primary Purpose of In-Lieu Fee (ILF) in MN

To achieve better, more targeted wetland mitigation.

- ✓ **priority locations**
- ✓ **better sites**
- ✓ **better projects**



2/5/2016 98

More effective mitigation by consolidating replacement into targeted wetland complexes that maximize functional benefits



2/5/2016 99

More strategic mitigation to achieve watershed goals



2/5/2016 100

Strategic Mitigation

Not just technical, but social as well.

- Must consider our perceptions and goals related to wetland conservation.
- Must consider local perceived needs.
- Must foster a sense of community ownership.
- Must consider cost-benefits analysis.



2/5/2016 101

In-Lieu Fee Requirements

1. Must have operational agreement with Corps.
2. Must have a compensation planning framework (how projects are selected and prioritized).
3. Advance credits concept.
4. Proactive, interagency project selection process.
5. Full cost accounting.



2/5/2016 102

Concerns to Address

1. Potential impacts on private banking.
2. Mitigation obligations on the State.
3. Cost.



2/5/2016 103

Potential Direction for ILF Program

- Only BWSR will sponsor the ILF.
- However, private entities, conservation groups, LGUs and other agencies can be used to implement the ILF (contracts, cooperative projects, etc.).
- ILF operation can be complimentary to private banking by minimizing competition between ILF and banks.
- Prioritize the use of banking credits over advance credits consistent with Federal Mitigation Rule. (1. Bank Credits, 2. ILF, 3. Project-specific)



2/5/2016 104

In-Lieu Fee Preliminary Ideas (Cont.)

- ILF planning framework made publically available and used by private bankers.
- ILF may prioritize:
 - 1) Difficult to replace wetlands and functions, including the new NE credit actions, and
 - 2) High Priority Areas.
- Must have start-up/revolving fund to develop the program, achieve targeting goals, and reduce risk.



2/5/2016 105

BWSR Experience Mitigating Wetland Impacts

- Local Road Wetland Replacement Program
- Replaced over 3,000 acres of impact since 1996
- Generated over 5,000 credits around the state



2/5/2016 106

Experience Helps

- Project selection methods have been developed.
- Partnerships have been established.
- Project costs are known.



2/5/2016 107

Other 2015 Statutory Changes that Compliment ILF

- New fee authority.
- New Northeast wetland credit actions.
- High Priority Areas.



2/5/2016 108

Fee Authority (Full Cost Accounting)

Bank Plan Reviews	General Fund
Easement Acquisition	New Statutory Authority
Bank Account & Transaction Mgmt.	Current Fees
Easement Monitoring & Enforcement	New Statutory Authority
Easement Maintenance	Needed

2/5/2016 109

New Northeast Wetland Credit Actions

The ILF will be the primary mechanism to implement these actions via partnerships with LGUs, conservation groups, private entities and other agencies.



2/5/2016 110

High Priority Areas

The ILF will utilize Statewide HPAs in the compensation planning framework to target mitigation as appropriate.



2/5/2016 111

WCA Rule

- Since:
 - 1) BWSR will be the ILF sponsor, and
 - 2) ILF must be consistent with federal mitigation rule:
- The WCA rule will likely include minimal language regarding the establishment of the ILF. It will instead cite the appropriate parts of the federal mitigation rule.
- The rule will, however, address the use of the ILF.
- The rule must have consistent standards for all mitigation types (ILF vs. Banking vs. Project Specific).

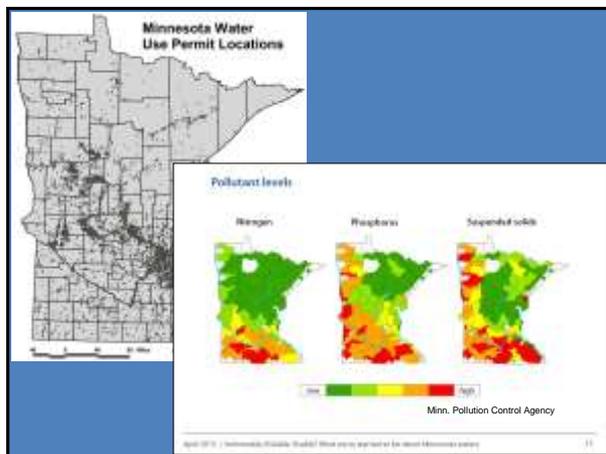
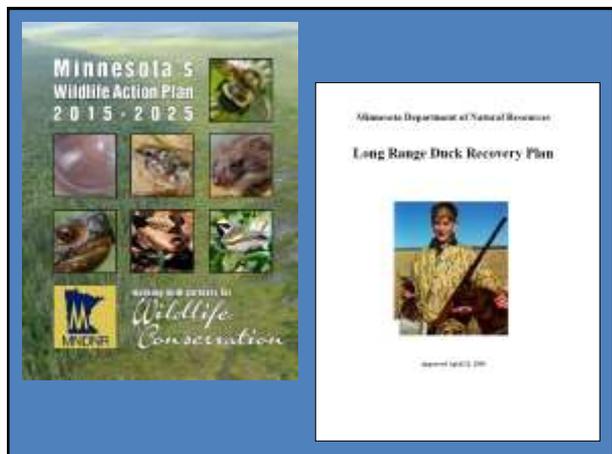


2/5/2016 112

Potential Process for Establishing Priority Areas

- 1) Establish interagency team.
- 2) Review information from agency staff, state-wide plans, LGUs, and State-approved local plans.
- 3) Recommendation to and approval by BWSR Board.
- 4) Publish in State Register and BWSR website.
- 5) Targeting and project implementation begins.

❖ The Corps will be involved in the process and can incorporate the priority areas into District Policy as appropriate.



Designating High Priority Areas

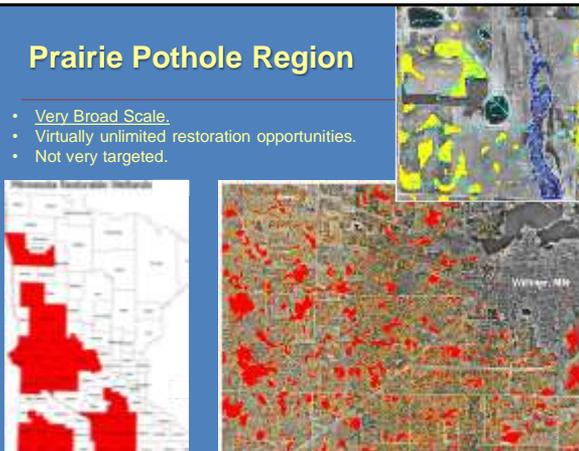
Scale?



What's the proper balance between being large enough to provide sufficient project opportunities, yet small enough to result in improved outcomes from targeting.

Prairie Pothole Region

- Very Broad Scale.
- Virtually unlimited restoration opportunities.
- Not very targeted.



Map 7. Potential Corridor Complexes



Minnesota Prairie Conservation Plan

- Smaller and much more specific scale.
- Improved targeting and coordination.
- Still large enough to contain significant restoration opportunities, with a process in place to implement.

Designating High Priority Areas

Minnesota Prairie Conservation

Table 5. Prairie, Grassland, and Wetland Conservation Goals – Acres and Cost

	Grass	Grassland Complex	General Corridor	Agricultural Buffer	Total	Cost
Minnesota Prairie Conservation Goals						
Fee Acquisition (102,700 acres)	71,800	800	1,900	2,100	81,600	\$81,600,000
Endowment (20,000 acres)	11,100	1,000	4,100	49,000	75,200	\$77,100,000
Total	82,900	2,800	6,000	21,100	142,800	\$258,700,000
Preliminary Protection Goals for Other Grassland and Wetlands Based on Protective Benefits						
Fee Acquisition	10,000	10,000	1,000	174,000	295,000	
Endowment	30,400	23,000	23,000	240,000	416,400	
Contract and Voluntary Conservation Management	100,000	30,000	30,000	1,227,000	1,487,000	
Total	140,400	63,000	34,000	1,441,000	1,638,400	
Restoration Goals for Grassland and Wetlands						
After fee acquisition (14,000 acres) (conservation easement)	10,000	5,000	5,000	20,000	40,000	\$200,000,000
After endowment (20,000 acres) (conservation easement)	30,000	11,000	12,000	30,000	83,000	\$800,000,000
After ongoing (16-30 year contract) (20,000 acres) (conservation easement)	100,000	45,000	10,000	170,000	335,000	\$445,000,000
Total	140,000	61,000	27,000	320,000	558,000	\$1,445,000,000

Additional info can be considered.

Data sets incorporated in this example:

- Nature Conservancy Core Areas, Corridors, and Corridor Complexes.
- MPCA Impaired Waters (subwatersheds).
- DNR Ecological Patches and Connections (using modified version of 2006 National Land Cover Database).



Targeting

- Targeting is more than setting priority areas.
- This is an example of the targeting of sites within identified areas.
- Targeting could be an important role of local planning efforts.

Potential mitigation opportunities with multiple benefits?



Tools for Targeting . . .

Development and distribution of a comprehensive geospatial data package for strategic planning of wetland restorations and enhancements in the Agassiz Beach Ridges and Mahanomen Prairie Core

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Tools for Targeting . . .

Local HPA Recommendations

- Through a BWSR approved local water plan, local governments may also identify and submit areas for consideration in Statewide HPA designation.
 - ❑ Consider currently available planning information.
 - ❑ Review future recommendations periodically (e.g. 10 yr. planning cycle).
- Local governments can also, under their existing local authorities, identify and require use of local high priority areas within their jurisdiction.

Discussion

