



MN Board of Water & Soil Resources Conservation Drainage Management Program Grants FY 2013

Tiling and Conservation Drainage
Workshop and Field Day

August 28-29, 2012

Hankinson, ND

Al Kean, Chief Engineer, BWSR





Drainage isn't a Bad Word



Agriculture



Roads



Cities

Much of Minnesota's land use activities depend on natural and artificial drainage
The key issue is how we manage drainage!



Why the Focus on Drainage Water Management?



Surge in Pattern Tile Drainage

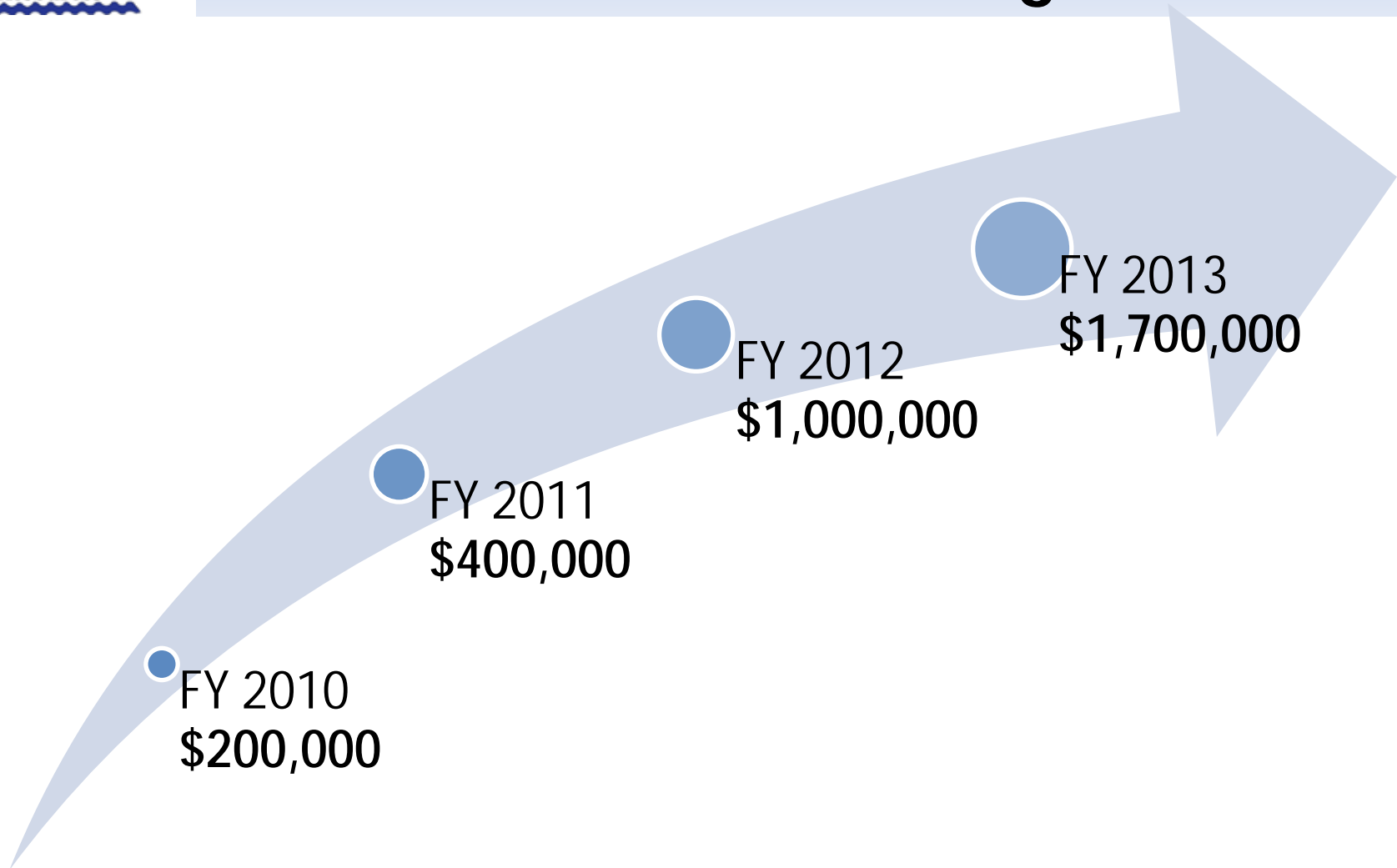


The Red River of the North is an international watershed.

BTSAC Briefing Paper #2



MN Clean Water Fund Conservation Drainage Grants





BWSR Conservation Drainage Grant Purposes

Grants have been used to:

Retrofit Existing Drainage Systems for
Water Quality

Evaluate Outcomes

Provide Outreach & Technical Assistance



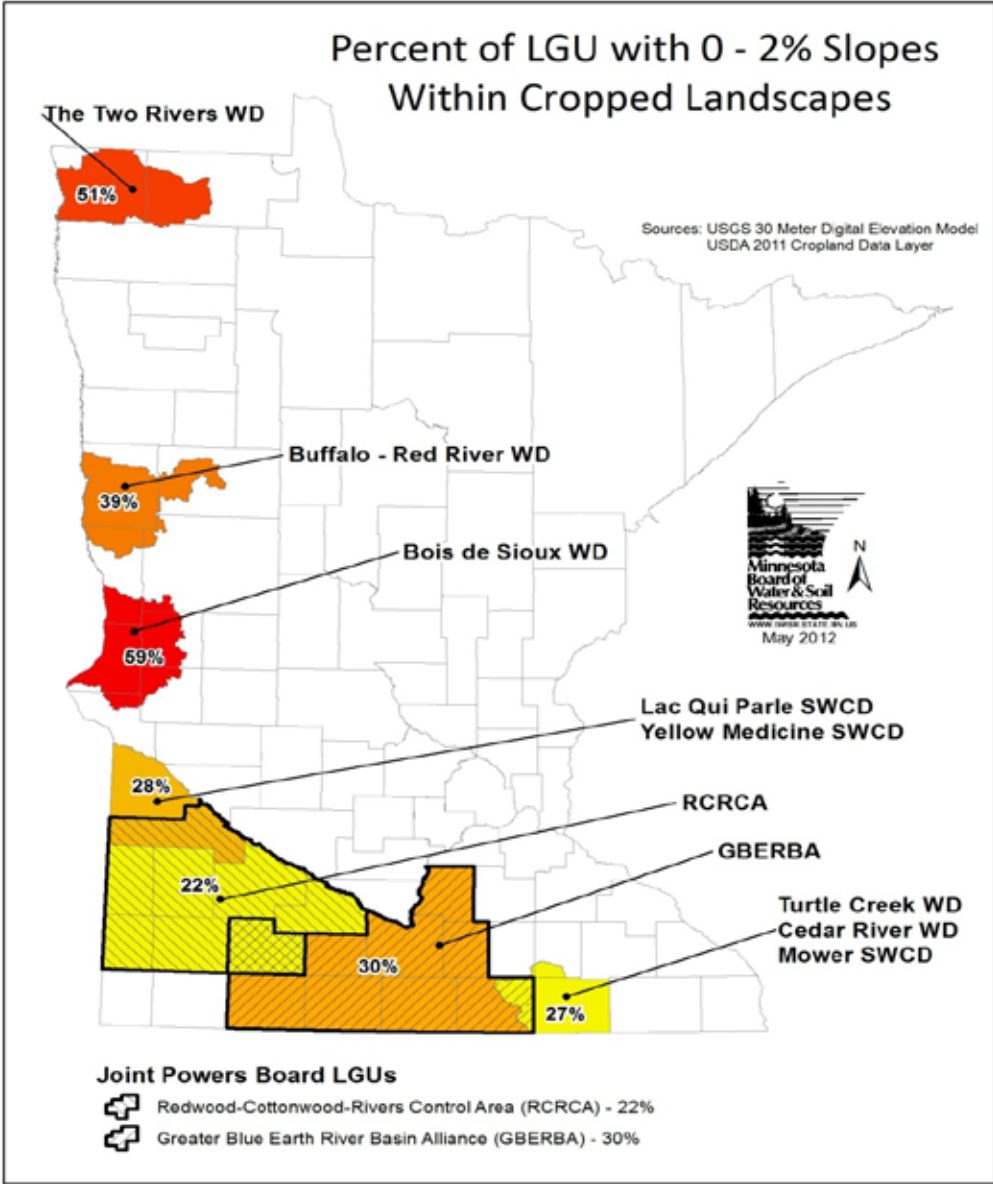
What's New for 2013?

+ \$700,000

- Drainage Water Management
- funding for both existing and new tile drainage systems



FY 2013 Targeted Drainage Water Management Grants





Competitive Conservation Drainage Management Program

- Focus is on agricultural drainage management
- **Eligible Local Government Units:**
Soil and Water Conservation Districts,
Watershed Districts, Counties, and Joint
Powers thereof
- Approx. \$1,000,000 available for FY 2013
- FY 2013 application period opened August 1
and ends September 14



State Program Payment Rates

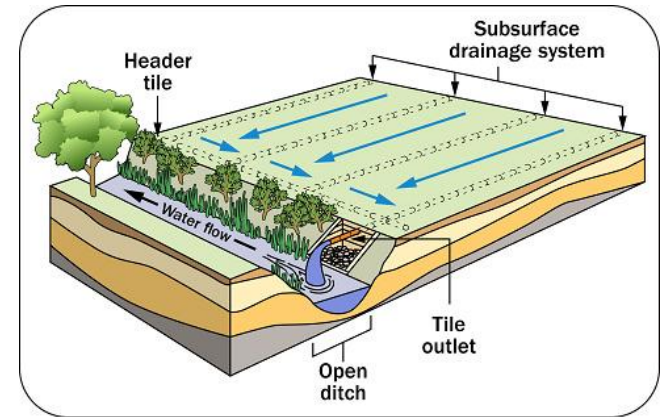
- 75% cost-share for most eligible practices and planning
- 25% match from any non-state source
- Certain operation incentive payments on a per acre basis for the first 3 years, up to 300 acres



Eligible Practices

DWM – Controlled Subsurface Drainage

NRCS Conservation Activity Plan (CAP) 130 – Drainage Water Management by TechReg TSP
NRCS Practice 587 Structure for Water Control
NRCS Practice 554 Drainage Water Management, Implementation/Operation – CAP 130 is required. \$7.58 per acre per year for the first three years of implementation and operation, up to 300 acres



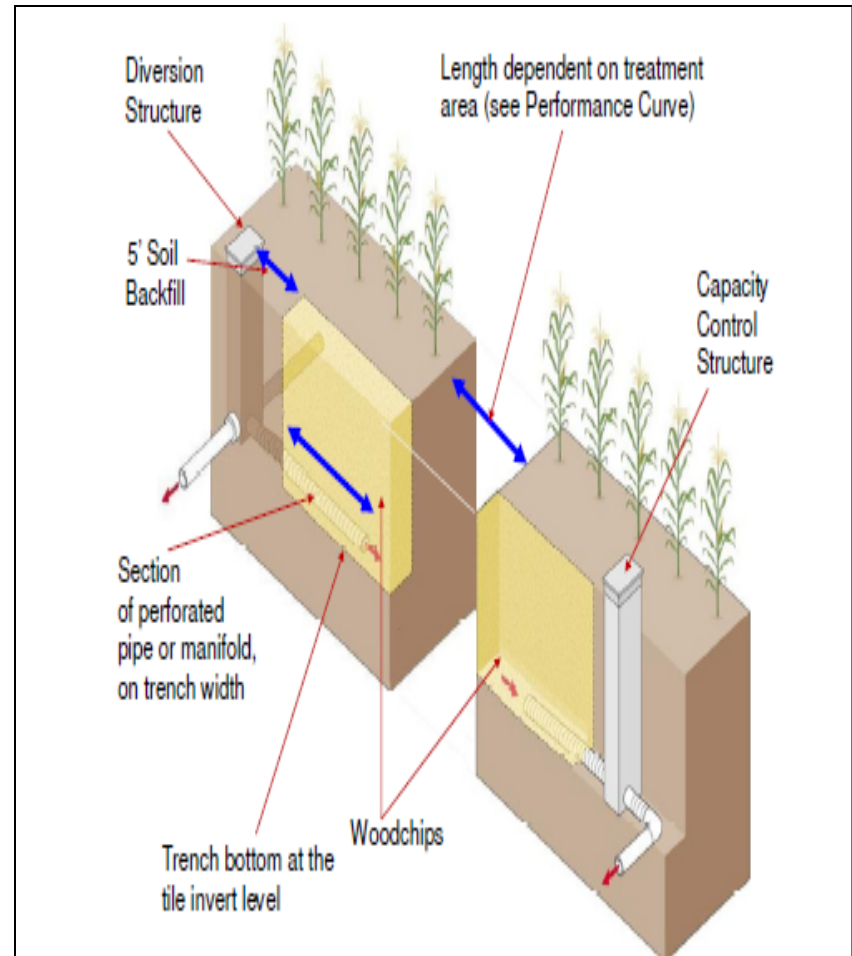


Eligible Practices

Denitrifying Bioreactor

NRCS Interim Practice 747 Denitrifying Bioreactor

- Wood chips are typically used as a carbon source for bacteria and microbes that provide denitrification.





Eligible Practices

Nutrient Management

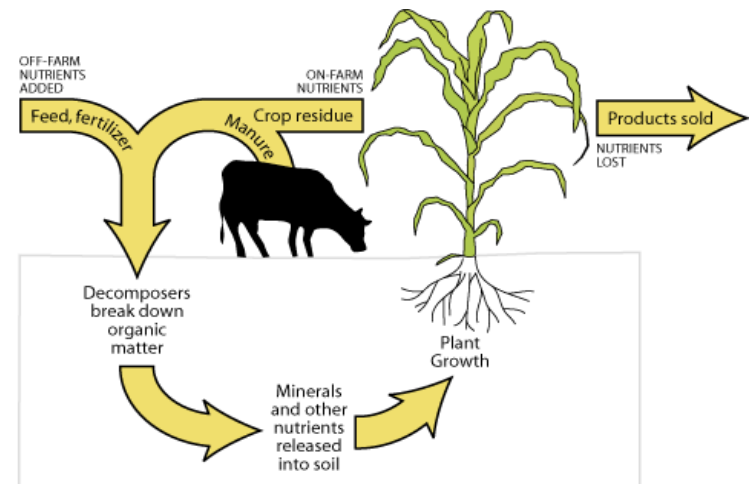
NRCS Conservation Activity Plan (CAP) 104 Nutrient Management Plan

- On fields for which controlled subsurface drainage and/or a denitrifying bioreactor is planned.
- Plan must be developed by a NRCS TechReg certified Technical Service Provider (TSP) for Practice 590 Nutrient Management.



NRCS Practice 590 Nutrient Management

- On fields where controlled subsurface drainage, denitrifying bioreactor and/or existing open tile inlet(s) are replaced by dense pattern tile.
- A CAP 104 is required.
- Implementation incentive for the first three years at \$5.44 per acre per year for CAP 104 acres without manure and \$10.78 per acre per year for CAP 104 acres with manure, up to 300 acres.





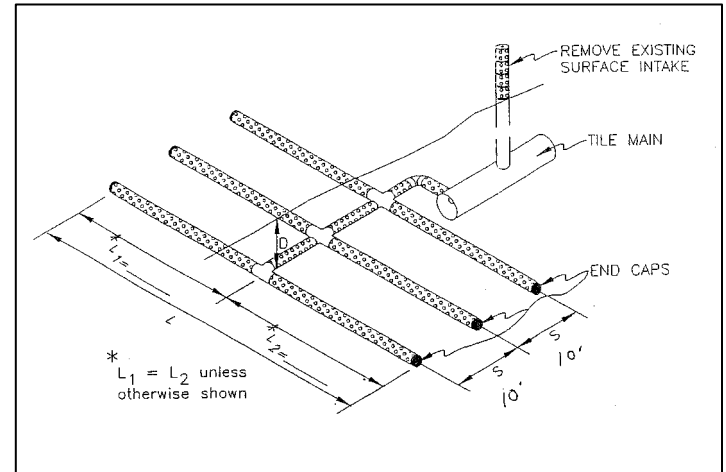
Eligible Practices

Replace Open Tile Inlets

Side Inlet Controls

Replacement of Existing Open Tile Inlet(s): with water quality improvement inlet(s)

Side Inlet Controls:
Along existing drainage ditches or streams to reduce erosion, provide temporary detention, and sediment settling





Multipurpose Drainage Water Management Planning

“Multipurpose Drainage” – Engineered drainage systems that provide both private drainage benefits and public water management benefits

- Must be for a Chapter 103E public drainage system
- Must involve a Chapter 103E drainage authority (County or Watershed District)
- Identify on-field and on-farm practices, as well as on-drainage-system practices, many of which are eligible for various program funding
- Planning , targeting and marketing



Multipurpose Drainage Water Management Goals

- Provide adequate agricultural drainage for crop planting, productivity, and harvest
- Provide more equitable upstream to downstream drainage and protection
- Reduce peak flows and flood damages
- Reduce erosion (field and channel) and sedimentation
- Protect and improve water quality
- Increase aquatic and/or terrestrial wildlife habitat



Ineligible Practices

- Tile, except for dense pattern tile to replace existing open tile inlet(s)
- Ditching
- Culverts or bridges through roads
- Ambient water quality monitoring



Questions?

- Technical Questions
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- Programmatic Questions
 - Clean Water Specialist
 - Board Conservationist