

Pierce County
Land and
Water
Resource
Management
Plan
5 Year
Extension



Pierce County

- Total land area 378,240 acres
- Farmland 271,178 acres
- 174,000 is actively cropped
- 105,050 acres of Woodlands
- Population 41,107
- Livestock 51,000



Surface Water Resources

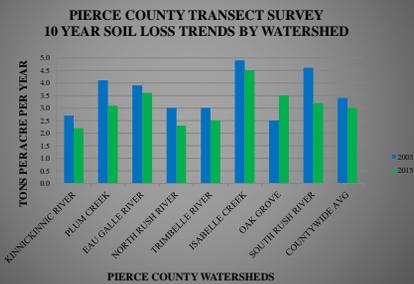


- 2000 miles of intermittent and perennial streams
- 47 trout streams for a total of 159 miles
- 2 impoundments total 242 acres
- Mississippi and St. Croix rivers form county borders

Resource Challenges

- Excessive cropland erosion
- Gully erosion
- Nutrient runoff
- Groundwater protection
- Stream erosion (perennial & intermittent)

Transect survey results



Sheet & Rill Erosion

- Excessive tillage produces excessive erosion
- Land rollers
- Residue attached



Cropland management decisions are key

- Maximize water infiltration
- Improve soil health
- Reduce inputs
- Updated conservation plans
- No-till education
- One on one NM planning
- NM cost sharing on **8289 acres**
- Cover crop cost sharing on **2734 acres**
- Voluntary implementation



Waterways needed

- Concentrated flow channels in fields
- **257.3 acres** of waterways constructed (average soil loss 56 tons/ac/year)
- Require compliance with "T" on tract receiving cost share



Field edges

- Gully erosion on field edges
- **49** grade stabilization structures (41 tons/year reduction)
- **1720'** diversions
- **35 acres** critical area seeding



Groundwater Threats – direct conduits

- Unused wells
- Sinkholes
- **21** well decommissioned
- **21** sinkholes repaired



Stream Restoration



1030 feet of stream bank stabilization on Rush and Eau Galle Rivers

Agricultural Performance Standards Strategy

Priority Areas

- Sub-watershed areas with greatest potential to improve water quality



Priority Farms

- Cropland and livestock facilities located in WQMA's
- Manure storage ordinance permit applications
- Farms w/o conservation or nutrient management plans
- AEA agreements
- Complaints

NR151 Performance Standards & Prohibitions

- Farm walkovers when receiving cost sharing
- Priority areas established
- Failing manure storage
- Unconfined manure piles
- TRM & NOD to address issues



Manure storage

- 11 new storage facilities – 2 enforcement, 9 constructed to comply with 590 standard
- 8 Storage closures



NR151 Performance standards & prohibitions

- 6 clean water diversions (roof runoff control)
- LWRM & County \$\$
- Efficient tracking system needed



Watershed Approach

- Transect survey data
- Aerial photo inventory
- Recent flash flooding
- USDA-NRCS funding from Mississippi River Basin Initiative in 2015
- \$1,500,000.00 to fund surface water quality improvements
- Additional \$384,000.00 allocated



Eau Galle River

- Severe stream bank erosion
- Stream corridor pastures
- Grade stabilization structures
- Waterway systems
- Sinkhole treatments
- LWRM & County \$\$



South Kinnick Farmer Led Watershed



Farmer Led Watershed Council

- Started off in barn, now held in Town Hall
- Typically meet monthly from December through June
- UWEX coordinator & LCD technician work closely with FLW



FLW Achievements

- 30 Sign-ups for conservation incentives
- 18 walkovers conducted
- 3453 acres soil sampled
- 7400' waterway constructed
- P-Index baseline established (SNAP PLUS)
- Parties of interest brought together
- Farmers and landowners inspired

St. Croix River TMDL

- Pierce County's portion very small
- Kinni has highest per acre phosphorus load (TMDL report)
- WI and MN in partnership
- NGO's very active



Proposed Agricultural Enterprise Area



2017-2021 Planned Emphasis

- Farm walkovers
- Plan, design & install BMP's
- Nutrient management
- No-till planting education
- NR 151 Evaluations (c/s recipients & FPP)
- Modeling & Tracking ??

Conservation Champions



Future Conservationists



Questions

