Mississippi River – Reno Watershed: Water Plans

The Mississippi River – Reno Watershed encompasses Houston County. Each county has developed a 10-year rotating comprehensive local water management plan (LWMP) in order to improve water quality within Minnesota. The water plans are comprised of a set of concerns the counties have described as a priority, along with how they intend to effectively manage them.

This document contains two parts: (1) A comparison of management goals from Houston County (2) A summary of all county water plans in the watershed including priority concerns, goals and objectives, and actions related to nutrient management.

Water Plans:
Houston County LWMP 2007-2017 amended 2012

Water Plan Evaluation

Concern	Houston
Conservation BMPs	
Coordination/Partnership	
Education	
Feedlot Compliance	
Groundwater	
Monitoring	
New Technology	
Priority Pollutants	
Sediment	
Shoreland Management	
SSTS/ISTS	
Stormwater Management	
Surface Water	
Technical/Financial Assistance	
TMDL - Impaired Water	
Water Retention	
Wetlands	

Concerns addressed in County Water Plan associated with nutrient issues

Strong ongoing activities implemented in programs outside of the County Water Plan

Houston County LWMP 2007-2017 amended 2012

Priority Concern: Changes in agriculture and effects on water resources

Priority Concern: Impact of development on the sensitive Karst topography

Priority Concern: Recreation uses of water and impact to the environment

Priority Concern: Education and awareness of resources and sensitivity

Priority Concern: Groundwater sensitivity in Karst topography

Goal: Protect groundwater in order to maintain an adequate supply of safe drinking water for current and future generations

Objective: Provide technical and financial assistance to land users to properly manage and utilize agriculture nutrients

Actions:

- Provide technical assistance on ag waste management on 20 per year
- Establish demonstration plot exploring manure application rate and nitrogen/phosphorus rates
- Manure application field day

Objective: Address non-conforming ISTS

Actions:

- Update 50 non-conforming ISTS
- Inspect all new & upgraded ISTS
- Administer AgBMP loan program
- Enter all new & upgraded ISTS inspections

Objective: Well Tests

Actions:

- Offer free infant well tests of 15 families/year
- Offer well water testing kit at low cost to landowners
- Participate in SE MN Domestic Well Network
- Provide annual free nitrate testing to Houston County residents
- Prepare two news articles annually on well testing
- Prepare posters on prenatal and infant care & place where appropriate

Goal: Improve surface water quality in rivers and streams in Houston County

Objective: Explore methods to slow decline in perennial vegetation

Actions:

- Promote existing programs which offer incentives to establish/maintain perennial vegetation
- Develop local/regional incentives to establish 1000/acres of perennial vegetation annually
- Information/education campaign on importance of hay land for erosion control and runoff reduction
- Assist with implementation/administration of programs that support/promote animal agriculture
- Promote perennial vegetation within the riparian zone through buffer initiatives the reduce sediment delivery and nutrient reduction. Goal of 20 acres annually

Objective: Provide incentives to adopt conservation practices which will offset the effects of current cropping trends on runoff and erosion in Houston County

Actions:

- Establish incentive program to plant 500 acres of fall cover crops
- Continue technical assistance to the NRCS through contribution agreements and other related programs to install approved EQIP conservation practices
- Seek federal, state, and local grants including but not limited to National Fish & Wildlife (NFWF), Emergency Defense Fund (CWF), and The Nature Conservancy to provide cost share and technical assistance to landowners for conservation practice implementation countywide
- Conduct one annual meeting with county commissioners and watershed groups to discuss funding mechanisms for BMP installation
- Continue partnership opportunities with The Nature Conservancy and NRCS to install 500 linear ft. of stream bank restoration and 30 acres of streambank buffers an 20 BMP's within priority areas of the Root River Watershed
- Provide technical and administrative assistance to the Crooked Creek Watershed to implement their watershed plan
- Contact ARS (Agriculture Research Station) to obtain cover crop data information for Houston County landowners and conduct one landowner workshop
- Assist Minnesota Board of Water and Soil Resources (BWSR) in the conservation practice and implementation and enhancement of the Hokah Wetland Bank Project. Plan/maintain 80 acres of native grass plantings
- Provide outreach to landowners/landlords throughout the county through two annual news articles on the importance of conservation planning and installation of recommended practices. Goal of 20 per year

- Provide guidance, cost share assistance and recommendations to 20 Bee/Duck Creek Watershed landowners using various programs (CRP, EQIP, State) for forest stewardship activities that reduce runoff, improve wildlife habitat and maintain, expand and improve perennial cover
- Continue prioritization and promote of BMPs using LiDAR and the Stream Power Index (SPI) as a way to target sensitive landscape features that contribute a disproportionate amount of sediment and nutrients

Objective: Provide technical and financial assistance on feedlots

Actions:

- Provide planning and financial assistance for low-cost feedlot fixes on 5 lots per year
- Provide technical assistance to Houston County to conduct inspections and provide maintenance recommendations on 7% of open lot agreements (OLA program) per year
- Promote residue management on 500 acres of highly erodible land annually
- Encourage wetland restoration on 2 sites in Houston County
- Plan and implement grazing plans on 250 acres of sensitive areas annually

Objective: Provide technical and financial assistance to land users to establish practices which will reduce discharge of pollutants from animal feedlots

Actions:

- Continue ongoing partnership with county feedlot officer to address open lot agreement workload
- Assist JPB with 2 large feedlot storage and runoff projects

Objective: Develop additional alternatives to promote non-traditional livestock operations

Actions:

- Prepare and submit an annual news article on information and opportunities for non-traditional livestock operations and agricultural operations that support the use of perennial vegetation
- Provide most updated information and material related to non-traditional livestock operation and provide guidance and contacts to interested residents

Goal: Manage stormwater runoff to minimize risk to human life, property, and the environment

Objective: Provide technical and financial assistance to establish practices that reduce sediment delivery

Actions:

- Provide financial incentives to establish 5 push-up ponds annually
- Develop program providing stormwater retention through road culvert or ditch size reduction on 2 township and county roads annually

Objective: Explore opportunities to reduce peak flow from rural and urban residential development

Action:

- Provide home site evaluations on average of 12 rural building sites per year

Objective: Explore opportunities for solutions to flooding concerns throughout the county, including prioritization of water retention/flood storage using LiDAR Terrain Analysis and solicitation of funding sources for project costs and technical assistance along with utilizing upstream jurisdiction and other partners

Action:

- Participate with US Fish and Wildlife Service, Root River Citizens Committee and other partners

Objective: Provide administrative and technical assistance to address issues related to existing wetland within Houston County

Action:

- Assist the county in administering the WCA

Objective: New Technology

Actions:

- Provide funding and in-kind contributions for improved technology using LiDAR, stream monitoring projects and computer design software in an effort to enhance natural resource protection
- Discuss and prepare staff training needs for both technical and administrative employees

Objective: Flood Retention

Actions:

- Complete 2007, 2008 flood workload (Staggemeyer site 2)
- Provide annual maintenance on existing Winnebago Watershed flood control structures
- Provide technical and planning assistance to the Bee/Duck Creek, Crooked Creek and Winnebago Watershed committees
- Seek funding opportunities for cost share assistance through the Clean Water Grant proposal to install flood retention structures within the Bee/Duck Creek, Crooked Creek and Winnebago watersheds

Goal: Review of local and regional plans and ordinances for compliance and compatibility

Objective: Administer all provisions of Houston County Water Plan

Actions:

- Staff part-time Water Plan Coordinator
- Continue participation on SE WRB
- Review local/regional plans to insure compliance with Water Plan