ILLINOIS NUTRIENT LOSS REDUCTION: CURRENT ACTIVITIES, FUTURE DIRECTIONS

Illinois Water 2014
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Current Activities – Agricultural Sources

Many programs available to promote and fund conservation practices that prevent nutrient loss

- Section 319
- CREP
- Partners for Conservation Cost Share
- Streambank Stabilization and Restoration
- EQIP
- CSP
- Easements
- MRBI
- RCPP
- Driftless Landscape Conservation Initiative
- Illinois Buffer Partnership
- Clean Water Initiative
- National Water Quality Initiative

Current Activities – Agricultural Sources

Illinois Agriculture is leading efforts to fund research, outreach and on-farm demonstration of effective practices.

- Nutrient Research and Education Council
- Keep It for the Crop
  - N-Watch
  - Nitrogen management systems
  - On-Farm nitrogen rate trials
  - N-Calc (MRTN calculator)
- Cover Crop Training Initiative

Future Directions – Agricultural NPS

In order to make progress on nutrient loss reduction, widespread implementation of effective practices needed.

- Farmers select and apply the most appropriate and beneficial practices from options:
  - Fertilizer application
  - Cover crops
  - Edge-of-field (bioreactors, wetlands, water/sediment control basins, buffers, grassed waterways)

Future Directions – Agricultural NPS

- Expanded outreach and education on nutrient loss & available tools by public, private sector, academic and non-profits – watershed scale, crop advisors, farm managers
- Ag Water Quality Partnership Forum
  - Strengthen connections between industry initiatives, continuing education for CCAs, etc. to help producers evaluate/select BMPs
  - Steer education initiatives/assign responsibility
  - Coordinate/align funding
  - Identify future implementation steps

Current Activities – Point Sources

- Effluent limits in NPDES permits
  - Total P limit of 1 mg/L for new/expanding wastewater treatment plants
  - Total P limit of 1 mg/L for discharges into or upstream of a lake
  - Total P limits and/or total N goals – anti-degradation
  - Voluntary acceptance of permit limits
  - Contribution to violation of narrative standards

Current Activities – Point Sources

- As a result, 36% of major municipal dischargers have P limits – 70% of regulated discharge from major municipals
- Permit limits for Metropolitan Water Reclamation District of Greater Chicago will achieve 33% of the point source load reduction goal for phosphorus – Gulf of Mexico hypoxia

Current Activities – Point Sources

- Watershed planning efforts help with local impairments as well as reduce loads leaving the State.
- Fox River
  - "placeholder" phosphorus limit
  - Phosphorus removal feasibility report – 1 mg/L and 0.5 mg/L
  - Fox River Implementation Plan
  - Allocation of phosphorus loads will drive future permit limits

Current Activities – Point Sources

- Watershed Planning
  - Upper DesPlaines
    - 1 mg/L P permit limit to start
    - Optimization of current equipment
    - Develop watershed implementation plan
  - DuPage River/Salt Creek
    - Focusing on habitat restoration to improve biology
    - Nutrient-related permit conditions under discussion

Future Directions – Point Sources

- Nutrient Loss Reduction Feasibility Plan
  - Focus on majors in priority watersheds
  - Favor biological nutrient removal
- Review data and identify additional strategies
  - Nitrate-nitrogen
  - Industrial discharges
- Expand reduction planning efforts to additional watersheds to address local water quality problems

Urban Stormwater

- Current Activities
  - Municipal separate storm sewer systems (MS4) permits
  - Funding of structural/non-structural practices
    - Section 319
    - Illinois Green Infrastructure Grants
    - Clean Water Initiative
- Future Directions
  - Strengthen IEPA stormwater program/provide more technical and financial assistance from BMPs, green infrastructure, planning
  - Post-development stormwater performance standard
  - Urban Stormwater Working Group

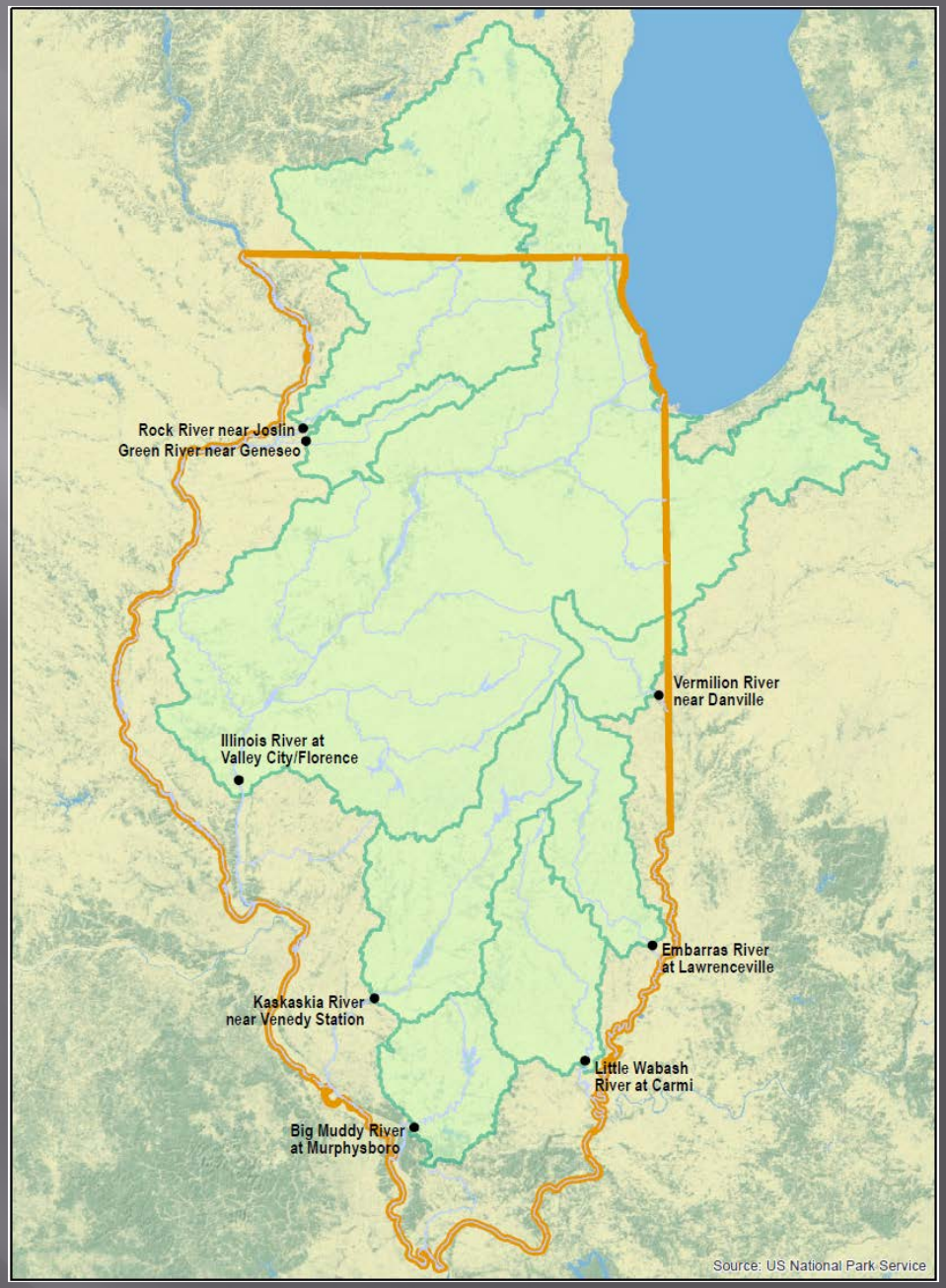
Water Quality Standards for Nutrients

- Revision of offensive conditions narrative standard
- Protection for low-phosphorus streams
- Numeric nutrient criteria
  - Nutrient Science Advisory Committee
  - Guide development of criteria by reviewing all available data, studies, methodologies and existing/proposed state standards

Showing Progress

- Track environmental outcomes and implementation activities
- Monitoring programs – local water quality/nutrient loads
  - Statewide Nutrient Export Loadings Network
- Implementation
  - NPDES
  - 319
  - Soil Conservation Transect Surveys
  - Natural Resources Inventory
  - NRCS Annual Report
  - Ag Industry Voluntary Reporting

Statewide Nutrient Export Loading Network



Public Information on Progress

- Biennial Condition of Illinois Waters 305(b) Report – Nutrient Section

- Biennial report on nutrient loss reduction implementation

Nutrient Loss Reduction Strategy

- Strategy document will be released for 30-day public review and comment
- Comments received will be incorporated into the document as appropriate
- Final document will be publicly released and submitted to USEPA