Water Resources Coordinating Council
Minutes
December 18, 2008
1:00 – 3:00 PM
Room 116, State Capitol

I. Call to Order – IGOV

II. Introductions and Agency roles in water resource management – IGOV
   a. Appointed agencies
   b. Invited partners
   c. Others in attendance

III. Background Information
   a. Watershed Quality Planning Task Force Report
   b. HF 2400 Legislation

IV. DNR Watershed Program Review
   a. State Water Plan – Bill Ehm
   b. Regional Watershed Assessments – Bill Ehm
   c. Basin Plan – Allen Bonini
   d. Lake Restoration Program – Mike McGhee

V. Rebuild Iowa Office
   a. RIO Update – Emily Hajek
   b. River Basin Studies with US Army Corps of Engineers – Ken Tow

VI. Future Plans and Meetings – IGOV

ATTENDEES

Name	Agency	Email	Phone
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Robert Sinkler	US Army Corps of Engineers	Robert.A.Sinkler.Col@usace.army.mil	309-794-5224
Richard Sims	USDA, NRCS	Richard.sims@ia.usda.gov	515-284-6655

MINUTES

I. Call to Order – IGOV (Jamie Cashman)
   a. Purpose of council
      i. Provide open forum to discuss water issues
      ii. Identify gaps
      iii. Vision from Governor Culver
         1. With budget constraints, this council is needed more than ever
         2. Spread water resources as comprehensively as possible among state government
         3. State, federal and local involvement is significant
         4. Guidance needed to include water-wastewater infrastructure, including dams, levees, etc
   b. HF 2400 identified 11 agencies and universities to be apart of WRCC

II. Introductions and Agency roles in water resource management – IGOV
   a. Appointed agencies
      i. IDNR – Rich Leopold - IDNR strongly supports Watershed Task Force Report; it goes to the core of IDNR's mission; Our best efforts to improve water quality is not working, i.e., currently there are 541 impaired waters, a 20% increase every four years; Need better coordination and implementation efforts
      ii. IDALS – Jim Gillespie and Bill Northey– Provides services to all 99 counties, including cost-share programs, would like to extend reach throughout Iowa
      iii. IFA – Bret Mills – Agency administers State Revolving Fund (SRF) with IDNR, suggested IFA and IDNR representatives present at next WRCC meeting regarding SRF Program
      iv. IDED – Hank Manning – Agency administers Community Development Block Grants, which includes providing 40% of HUD monies towards water-wastewater projects; coordinates efforts with IDNR, USDA and IFA; administers Green Streets Program, which includes funding stormwater best management practices
      v. IDPH – Ken Sharp – Works with IDNR Beach Water Monitoring Program; other programs of interest include: On-Site Program, Health Hazard Assessment Program, Technical Assistance, State Plumbing Code, Water Treatment, Licensing Plumbing, and Water Supply
      vi. US Army Corps of Engineers, Rock Island – Handout provided; covers five-state watershed area, including Cedar Basin and Des Moines; handouts distributed, including Water Resources Management Handbook; funding has increased by 30% for operations and maintenance; encourages working with state agencies
      vii. IHS – David Miller – Agency covers disaster response and recovery, including flooding, drought, floodplain management, restoration, control flow, water-wastewater treatment, monies are available, coordinates with other agencies

viii. IDOT – Jim Ross – Transportation and water issues, including bridges
ix. USDA, NRCS – Rich Simms – Office exists in all 99 counties; assist Soil and Water Conservation Districts, touches every environment component-water, soil, air, land and animals

b. Invited partners
   i. Iowa Natural Heritage Foundation – Duane Sand – Goal of INHF is to preserve and protect biodiversity in Iowa

c. Others in attendance

III. Background Information
   a. Watershed Quality Planning Task Force Report – Deb Ryan and Tom Hadden
   b. HF 2400 Legislation – Deb Ryan and Tom Hadden
      i. Many resources exist with state and federal agencies; however, there is a lack of coordination, effective use of what is available; many expectations for WRCC

IV. DNR Watershed Program Review
   a. State Water Plan – Bill Ehm
      i. Handout provided
      ii. Last State Water Plan published 1978
      iii. For 2008 State Water Plan looking to include:
         1. Collect information, develop white paper, request public comment, print, distribute
         2. Plan should be posted around January 2009
   b. Regional Watershed Assessments – Bill Ehm
      i. Handout provided
   c. Basin Plan – Allen Bonini
      i. Handout provided
      ii. Long-sustainable resources exist at the local level
      iii. Local participation is key to getting watershed projects completed
   d. Lake Restoration Program – Mike McGhee
      i. Handout provided
      ii. Six of 10 Iowans visit a lake per year, which generates approximately $1.6 billion in annual spendings in the state
      iii. Of the 131 lakes in Iowa, IDNR has focused its efforts on 35 lakes.
      iv. Prioritization included considering water quality, public benefit, and feasibility of restoration
      v. Program works extensively with local people, i.e., farmers, NRCS

V. Rebuild Iowa Office
   a. RIO Update – Emily Hajek
      i. Currently office is funded through economic development and HUD, 100%

ii. Projects include working with flooding mitigation and watershed assessment

b. River Basin Studies with US Army Corps of Engineers – Ken Tow
   i. Handout provided
   ii. Offers assistance to US Army Corps of Engineers, Rock Island district
   iii. Need to look at RIO's 120-Report, #9 recommendation

VI. Future Plans and Meetings – IGOV

a. Future meetings
   i. Required to meet quarterly; however, WRCC can convene earlier if requested

b. Other Recommendations
   i. Develop overview of other programs, efforts occurring with state government
   ii. Meet before April 2009, perhaps February 2009, to keep effort moving forward
   iii. It is with hope IDNR utilizes WRCC to develop State Water Plan
   iv. Develop Report to ensure accountability of WRCC
   v. Items to discuss at next WRCC meeting
      1. Water-Wastewater Infrastructure
      2. State Revolving Fund

<u>Action Items</u>

1) Divide subgroup to identify watershed priorities within the State
   a. Work directly with the US Corps, including IDALS, IDNR, IHS, IDED, IDOT
   b. Develop watershed priority watershed projects; give to U.S. Army Corps
   c. Coordinate state and federal efforts for watershed projects
2) Develop Memorandum of Understanding within WRCC for true commitment, proactive

<u>Other Questions / Discussion</u>

- Agencies need to talk with one another of the resources each respective agency has; work together to coordinate a solution (Deb Ryan)
- Agency gets caught in a competitive process with other agencies, debated issues include what is best for water flow, economic development, or local watershed projects of cause and effect (David Miller)
- Could do a better job if US Army Corps of Engineers knew the Top 10 Watershed Priorities within the State; having a list would help focus on a priority(s) within the State rather than individual, separate projects. (Col. Sinkler)
- Slowing water down also improves water quality (Linda Kinman)
- Suggestion to pick 'low-hanging fruit', including obtaining federal matching funds, w-ww economic stimulus, USDA Farm Bill, for leveraging.

Joint NRC/EPC Meeting
January 14, 2009

Iowa Water Plan

Background:

- Last comprehensive plan done in 1978
  http://www.iowadnr.com/water/quantity.html
  - 1978 plan funded by federal Title III Water Resources Planning Act
  - Eight topic chapters
- Requirement for comprehensive water planning was deleted from the Code in 1983
- Funding is available for only specific pieces of the current planning effort

Current Effort:

- Based upon 1978 Plan
- Four introductory chapters:
  - Iowa in Perspective
  - Iowa's water resources
  - Law and government
  - Past planning efforts
- Eight topic chapters
  - Water quantity and allocation
  - Floodplain management
  - Water quality
  - Water based recreation
  - Commercial navigation
  - Fisheries, wildlife, & native vegetation
  - Agriculture
  - Energy

Process:

- Continual internal development of issues in topic areas over time
- External panel of experts to review topic issues and develop draft recommendations
- Public review of recommendations
- Available to the public
  - Each topic chapter to be developed as individual paper
  - Post to DNR website as draft
  - Solicit input and comment via public meetings
- Final adoption and final posting

Joint NRC/EPC Meeting
January 14, 2009

Progress:

- Law and Government completed
- Past planning efforts completed
- Water quantity issues ready for expert panel
- Floodplain issues ready for expert panel
- Water based recreation in process
- Access via DNR website by January 30, 2009

Law and Government:

- Overview of federal, state, and local authorities with respect to water
- Contains no recommendations for legal or institutional change at this time

Past Planning Efforts:

- Review of plans, summits, task forces that have dealt with water

Water Quantity and Allocation:

- Partial funding secured from State & permit holders
- Aquifer characterization and modeling is in second year of 10-year effort
  - Dakota sandstone aquifer complete; public meetings complete
  - Jordan aquifer in progress
- Water allocation program improvements to begin in SFY 2010
- DNR internal committee has defined ~10 water supply/use issues
- Expert panel to meet in January 2009

Floodplain Management:

- DNR internal committee has identified fifteen issues for consideration
- Rebuild Iowa Advisory Commission recommendations will be considered in water plan deliberations and recommendations
- Expert panel scheduled to meet in January 2009

Water Based Recreation:

- Two year planning process for river trails in progress
- State funding secured
- Expect draft product by December 2009

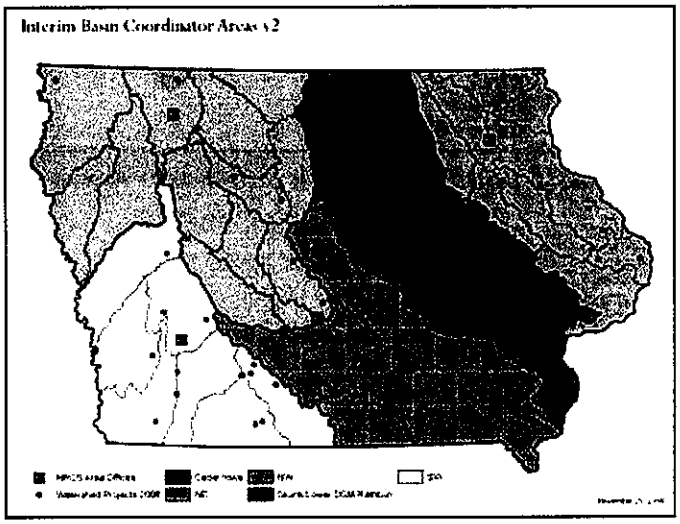
Framework for a Basin Approach to Improving Water Quality

Foundational Premise

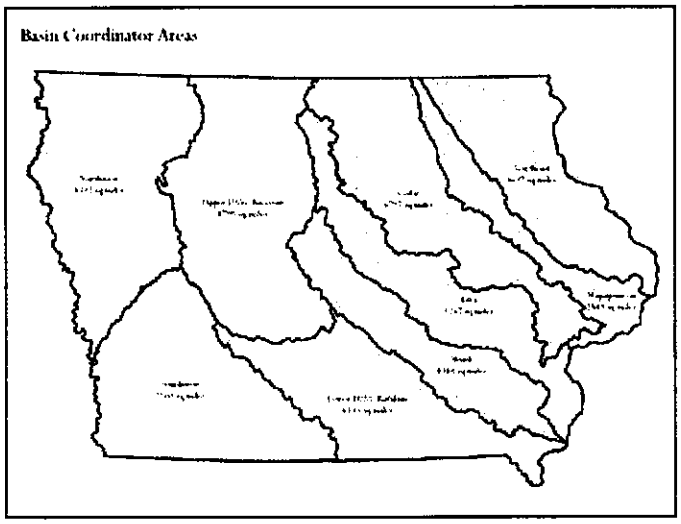
- Watershed and water quality improvement are best achieved using a watershed approach.
- There is a need to target limited resources to the areas of highest water quality priority or concern.
- Measurable improvements in water quality will take years, and even perhaps decades, to achieve.

The Framework

- Initially divide the state into 5 basins/regions, divide into 9 basins when resources allow.
- Assign Basin Coordinators to each basin.
- Subdivide each basin into approximately equivalent sub-basin areas.
- Assign Watershed Coordinators to priority sub-basin areas in each basin.
- Subdivide sub-basin areas into HUC10 and HUC12 watersheds.



Interim 5 Basin Boundaries



9 Basin Plan

Basin Coordinators

- Function as resource managers
- Ensure that WS projects and watershed (project) coordinators have needed resources and support
- Assist with watershed planning
- Coordinate with DNR, IDALS, SWCD, NRCS, and other agencies and groups

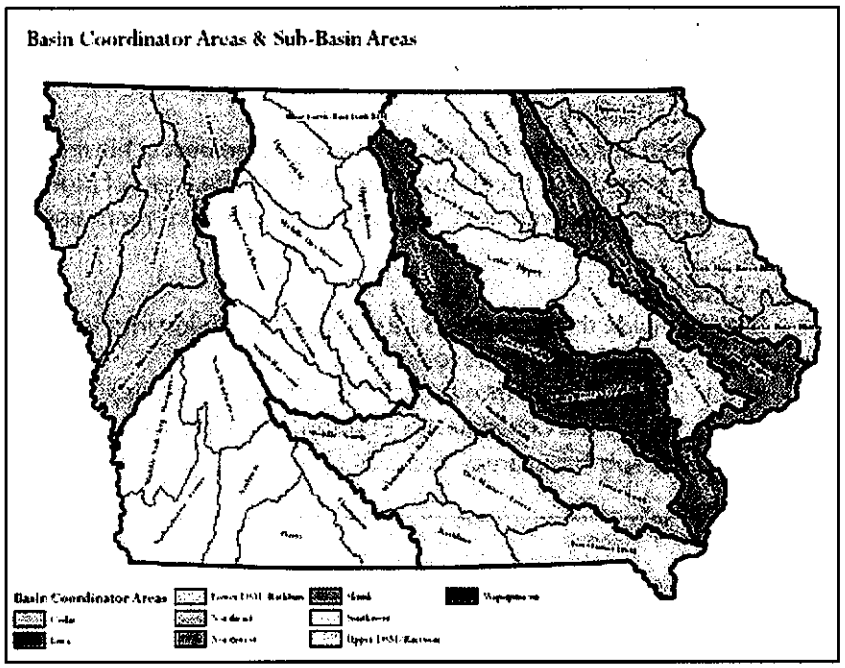
Watershed Coordinators

- Coordinate assessments of priority HUC10s
- Develop comprehensive watershed management plans
- Serve as the watershed advocate
- Coordinate marketing and promoting the local watershed plan
- Develop and implement projects at the HUC12 scale

Benefits

- Reinforces the importance of aligning WQ improvement efforts with watershed boundaries.
- Recognizes the value of regional watershed planning and implementation to achieve measurable WQ improvement goals.
- Allows resources to be focused and targeted to areas of greatest priority or concern.
- Creates an organizational structure that assigns clear responsibility and authority to develop and implement the watershed approach.
- Replicates the Rathbun Lake model for successful watershed planning and implementation.
- Actively engages local and regional stakeholders in developing watershed management plans that reflect the collective values and needs of these groups.

- Retains the need to implement WQ improvement at the local (HUC-12) scale.
- Creates an opportunity for long-term career placement and advancement for watershed and water quality professionals.
- Develops local and regional expertise and professional/technical credibility with local stakeholders.
- Supports the goals and objectives of the Water Resources Coordinating Council legislation (HF2400).



Expanded 9 Basin Boundaries with Sub-Basin Areas

Challenges

- Securing adequate resources ($ and staff) to implement this strategy.
- Addressing the logistics of coordinating activities in basins that cover thousands of square miles.
- Identifying and determining appropriate WQ improvement priorities – where to target.
- Changing the current geo-political framework.

Estimated Resource Needs

- Basin Staff
  - 4 additional Basin Coordinators ($500k)
- Watershed Staff
  - 45 WS (project) coordinators (already funded)
  - 7 year cycle = 2 year planning + 5 year project implementation (approx.)
  - Need to fund planning phase between projects ($1.3M)

Potential Funding Sources

- CWA 319 / WSPF / WPF — primary funding sources now
- WIRB — Would require changes to legislation
- NRCS — In kind (currently)
- New Appropriation
- Other?

Current DNR Contributions

- Funding 2.5 FTEs for Basin Coordinators (CWA 319)
- Partial funding for watershed coordinators
- Water quality data collection and analysis by the water monitoring section
- Each basin will have representation from field staff (Biologists, ESD, Parks, etc.) and central office staff (GIS, NPDES, Floodplains, Realty Services, etc.)

Next Steps

- Secure support for framework
- Finalize strategy
- Implement interim plan
- Secure additional funds
- Expand plan
- Others?

December 10, 2008

Lake Restoration Prioritization Process and Program

Key Concepts and Facts

- Lakes are important to Iowans
  - Six of ten Iowans visit lakes each year; they will visit these lakes an average of eight times during the year
- Iowans prefer lakes with better water quality
- Lakes provide significant economic benefits
  - Statewide our lakes generate $1.6 billion in annual spending by Iowans
- A lake is a reflection of both watershed and lake management
- Lake restoration starts in the watershed; it relies on strong local involvement and voluntary participation of landowners

Current Prioritization and Program

- Modeled after the Federal Clean Lakes Program established in the 1970s
- DNR provided the 2006 legislature with a priority list of 35 lake candidates
  - Priorities based on a 5-year ISU/DNR assessment of water quality
  - Technical feasibility of restoration
  - Potential economic benefits
  - Use by Iowans, and local interest/involvement
- Projects require a lake and watershed restoration assessment and plan
- Projects require local resources in combination with state and federal funds
- Local groups can petition to have their lake added to the priority list
- Project Status
  - 7 Near completion
  - 19 In progress
  - 7 Planning stage
- DNR provides an annual progress report to the legislature that includes a work plan and budget

Water Quality Goals

Stipulated in 2006 State Legislation (HF2782):

- Delivery of phosphorous and sediment from the watershed will be controlled before lake restoration begins
- Shallow lakes management will be considered among options for restoration
- Water quality targets
  - Clarity. 4 ½ foot secchi disc transparency 50% of the time from April – September
  - Biota. A diverse, balanced, and sustainable aquatic community must be maintained
  - Impairment. Water quality impairments must be eliminated
  - Sustainability. The water quality and public use benefits must be sustained for 50 years

Budget

- 2007 funding $8.6 Million
- 2008 funding $8.6 Million
- 2009 funding $8.6 Million
- 2010 $8.6 Million requested

DNR Contacts

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George Antoniou (515-281-8042) george.antoniou@dnr.iowa.gov

Web Page: http://www.iowadnr.gov/water/lakerestoration/

Water Resources Coordinating Council (WRCC) -- December 18, 2008

Agenda Item V.- "b" – River Basin Studies with US Army Corps of Engineers (USACE)

Presented by Kenneth Tow, Environmental Specialist, Rebuild Iowa Office

PURPOSE: Forward offer of assistance from USACE to conduct River Basin Studies.

BACKGROUND: Need for basin-wide information evident in evaluating the response to Floods of 2008.

USACE presented outline of Iowa-Cedar Basin Study to final meeting of the Floodplain Management and Hazard Mitigation Task Force on October 22, 2008.

120 Day Report to the Governor by the Rebuild Iowa Advisory Commission (RIAC) presented twelve recommendations and strategies, with the ninth of those twelve recommendations stating: "The state will move state policy forward and lead the discussion with regional and local interests on flood plain and watershed management."

ACTION SOUGHT: Therefore, the Rebuild Iowa Office recommends the following:

1. That a subgroup of agencies from this council be assigned the task of evaluating Iowa's needs and priorities for basin studies and subsequently meet with USACE representatives to determine how their assistance could best be utilized,

2. That the working group periodically report back to the full council as deemed appropriate, and

3. That a lead agency or group of agencies be identified by the WRCC or the Governor for the purpose of working with the USACE to coordinate and carry out any resulting basin studies.

Iowa-Cedar River Basin
Potential Interagency Watershed Study

Authority/Cost Share: Effort could be initiated following House or Senate Study Resolution or provision of Federal funding under the existing UMR Comprehensive Plan Authority, Section 459 of Water Resources Development Act of 1999. Cost sharing 100% Federal for initial watershed recon (estimated at $1.5 million with a report in 2011 and interim products at earlier dates), and 50%/50% Federal/non-Federal for subsequent detailed Feasibility studies.

Study Area: Entire Iowa-Cedar River Basins including all tributaries in Iowa and Minnesota.

Need for Action: Recent flooding including the unprecedented 2008 flood, has brought focus to water resources issues in the basin and the critical need for basin-scale evaluations to improve understanding of risks and potential management options.

Potential Studies and Evaluations: A wide range of potential investigations would add to the collective understanding of the basin, help shape current and future water resource decisions, and result in a watershed management plan. An initial list of potential investigations, modeling, and tools is included below. These tasks could be preformed by Corps, NRCS, USGS, FEMA, State or others, but focus would be on interagency coordination of activities and basin evaluation.

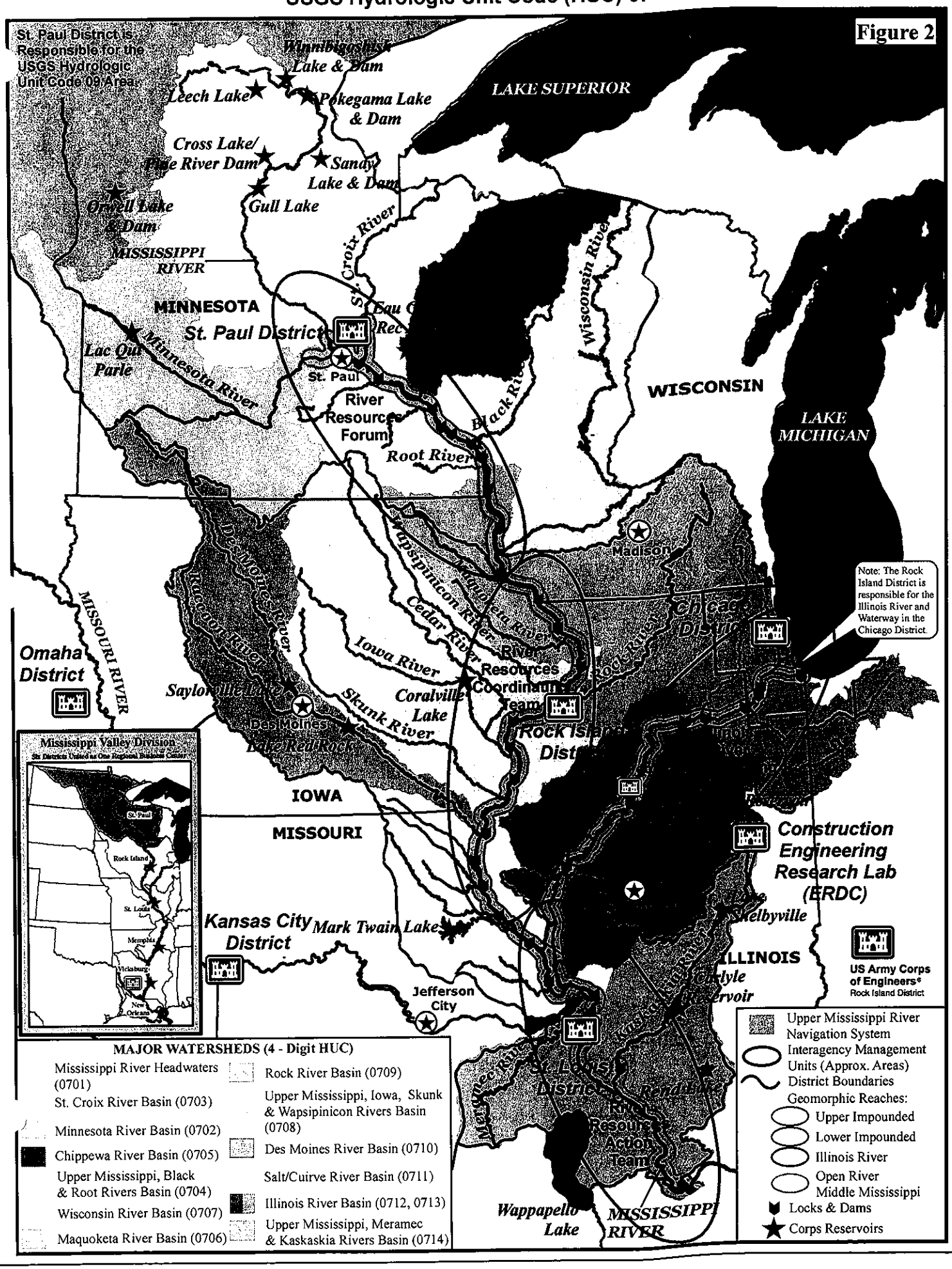
- Development and Implementation of Expanded Partnerships/ Collaborations Framework
- Visioning/Development of Alternatives - (1) small scale with communities and (2) basin wide (potential to tie in with Rebuild Iowa Task Force efforts)
- Hydrology and hydraulics modeling of basin and various alternatives (Coordination with State, NRCS, FEMA, and other Federal Agency in terms of alternatives). Types of alternatives that could be evaluated include (various floodplain management scenarios, wetland restoration, buffers, tile management, reservoirs, etc.)
- Re-evaluation of Reservoir Operations (Coralville Reservoir)
    - Analysis of Capacity / Sedimentation and options to address
- Water Quality evaluations of nutrients and bed and bank erosion (Coordination with State, NRCS, and others in terms of alternatives and model selection)
- Recreational Master Planning for Floodplain (recreation/tourism with IDNR, IDED, and Local communities)
- Habitat Assessment – identification of key habitat resources/areas, develop database of potential projects, listing of potential funding programs, prioritization framework, etc.
- Development of Decision Support Tools (models, tools, GIS coverages)
- Mapping extent of 2008 flood – ortho rectify photos (other GIS analysis) – (Potential for USGS to complete)
- Update Flood Frequency Curves – probability of occurrence (Potential Floodplain Management Services Study, 2009)
- Update Flood Profiles – extent of flooding (for selected communities)
- Flood Damage Assessments – document actual losses incurred in 2008 (select areas)

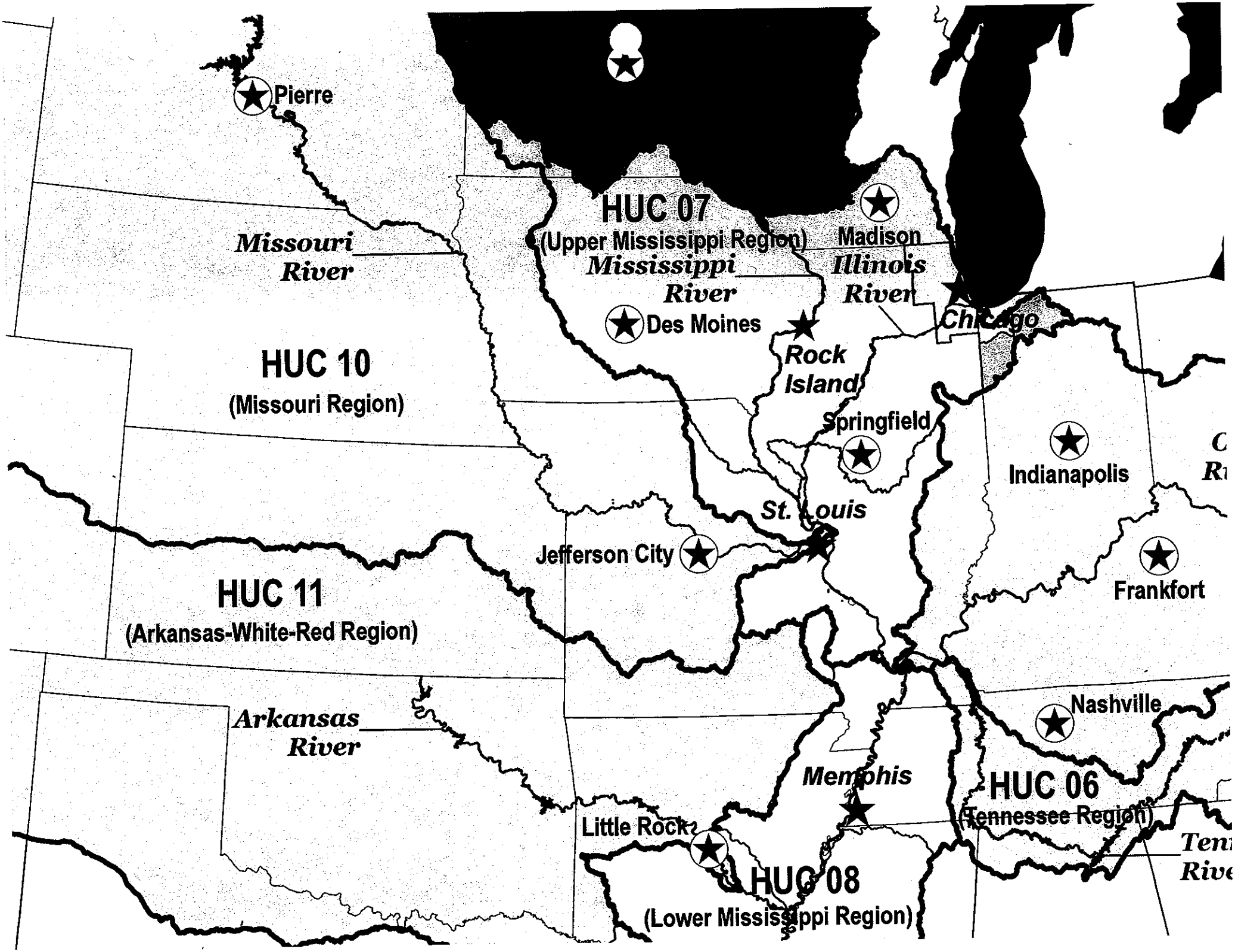
Benefits of Interagency Watershed Study: Interagency Local, State, and Federal initiative to set a vision for the basin. Complete investigations and modeling to identify the types and order of magnitude of efforts needed to effect hydrology/flooding, water quality, ecosystem health, and recreational opportunities. Potential to develop a watershed management plan to utilize available programs to reduce flood damages and enhance open space for habitat and recreation.

Contact Information: Dennis Hamilton, Corps of Engineers, (309)794-5340

The Upper Mississippi River Basin

USGS Hydrologic Unit Code (HUC) 07




Pierre
Missouri River
HUC 07
(Upper Mississippi Region)
Mississippi River
Madison
Illinois River
Chicago
Des Moines
Rock Island
HUC 10
(Missouri Region)
Springfield
Indianapolis
St. Louis
Jefferson City
Frankfort
HUC 11
(Arkansas-White-Red Region)
Arkansas River
Nashville
Memphis
HUC 06
(Tennessee Region)
Little Rock
HUC 08
(Lower Mississippi Region)

Rock Island District

OUR PURPOSE

The primary purpose of the Rock Island District is to partner with stakeholders in the management of the watersheds of the District in order to meet the national and regional needs of navigation; flood damage reduction; emergency management; ecosystem restoration and regulation; recreation; water supply; land management; and national security.

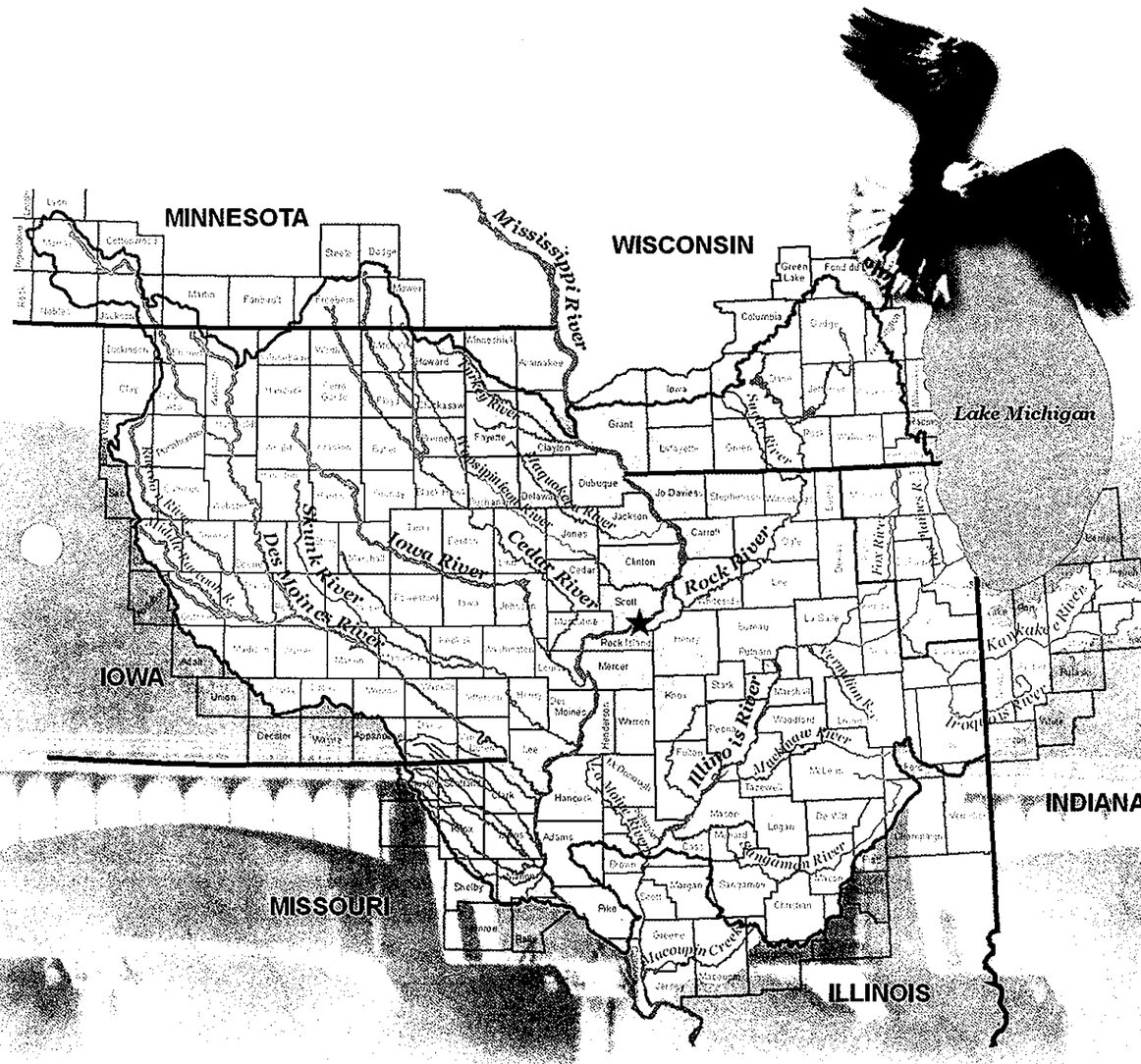
OUR MISSION

Rock Island District is a values-based public service engineering organization supporting our region and the nation by providing technical services, infrastructure management, and water resource solutions.

- **Collaboratively strengthen and expand** our **strategic alliances** with stakeholders, customers and interested parties to deliver products and services of greater value to the taxpayers.
- **Seek sustainability of our watersheds** in order to meet the long-term social, economic, and ecosystem needs of the region and the Nation.
- **Enhance** our **technical, operational** and **support capabilities** to better serve the Regional Business Center and the Nation.
- **Shape and develop** our **workforce** to accomplish our mission and seize future opportunities to better serve our region and the Nation.

- **Strengthen emergency response, recovery** and **national security operations** in order to improve our ability to serve the region and the Nation.
- **Expand** our **support to the military** in order to better serve in peace and war.
- **Strengthen** our **strategic communications** and **decision support systems** to enhance mission accomplishment.

U.S. ARMY CORPS OF ENGINEERS' CONTRIBUTIONS TO INTERAGENCY INTEGRATED WATER RESOURCES MANAGEMENT



A Leader in Integrated Water Resources Management

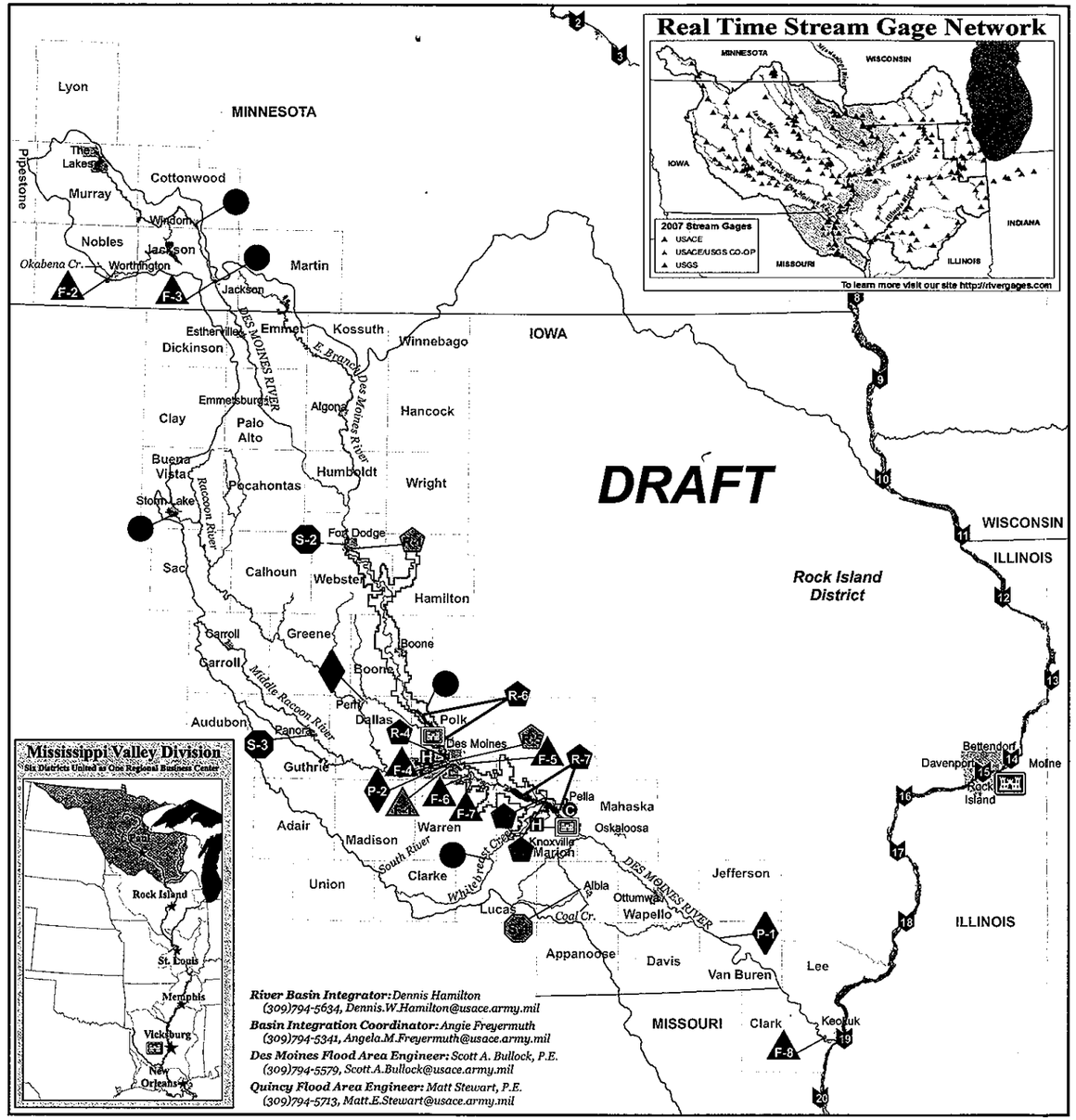
SERVING FIVE RIVER BASINS IN FIVE STATES

At the Heart of the Upper Mississippi River System

Des Moines and Racoon Rivers Basin

Corps Contributions to Interagency Integrated Water Resources Management

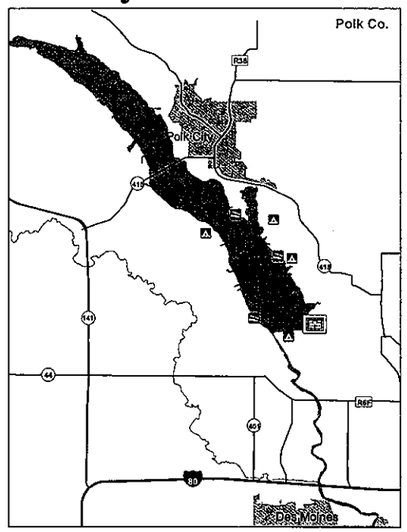
1995 - 2015



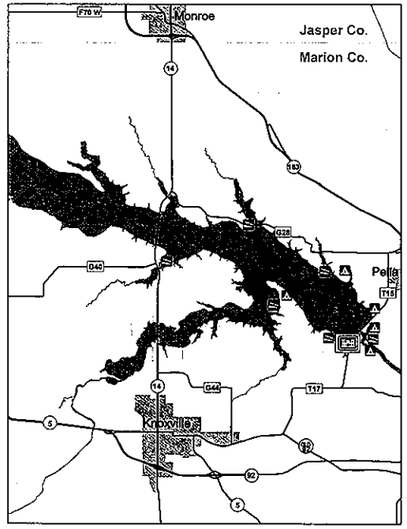
Map Prepared by the Rock Island District - Planning, Programs and Project Management GIS Team.

Des Moines River Basin delineated as HUC 0710 by USGS as described at http://water.usgs.gov/GIS/huc_name.html

Saylorville Lake



Lake Red Rock



FLOOD DAMAGE REDUCTION

F-1 Des Moines & Raccoon Rivers, IA
F-2 Worthington, MN Local Flood Protection Project
F-3 Jackson, MN Levee
F-4 Des Moines, IA Local Flood Protection Project
F-5 Southeast Des Moines, IA Remedial Works
F-6 Avon Station, IA Remedial Works
F-7 Carlisle, IA Remedial Works
F-8 Des Moines - Mississippi Levee District No. 1, MO
Regional Studies
National Levee GIS Database

Emergency Bank Protection

S-1 Coal Creek, Monroe Co., IA
S-2 Coats Addition Sewage Lagoons, Webster Co., IA
S-3 Middle Raccoon River, Panora, IA

INFORMATION SERVICES & DECISION SUPPORT

Flood Plain Management Services (FPMS)
P-1 Lower Des Moines River, IA Reconnaissance Study
Section 22 Planning Assistance to States (PAS)
P-2 Des Moines Water Works, IA
P-3 Perry, IA

ECOSYSTEM RESTORATION

Section 206
C-1 Windom, MN Fish Passage
C-2 Jackson, MN Fish Passage
C-3 Storm Lake, IA
C-4 Whitebreast Creek Watershed, IA
Section 1135
C-5 Big Creek Spillway, IA

RECREATION

R-1 Des Moines River Greenbelt - Fort Dodge Riverfront
R-2 Des Moines River Greenbelt - Red Rock Trail
R-3 Des Moines River Greenbelt - Cordova Center
R-4 Des Moines River Greenbelt - Simon Estes Amphitheater
R-5 Des Moines River Greenbelt - Des Moines Riverwalk
R-6 Saylorville Lake
R-7 Lake Red Rock

REGULATORY

Rock Island District has regulatory responsibility for the State of Iowa.
St. Paul District has regulatory responsibility for the State of Minnesota.

Planning Phase
Design Phase
Implementation/Construction Phase
Operational Phase/Study Completed

For more information about our projects, visit
http://www2.mvr.usace.army.mil/projects/index.cfm

- Rock Island District Headquarters
- Saylorville Lake Visitor Center
- Lake Red Rock Visitor Center
- Lock & Dam
- USACE Boat Launch
- USACE Campground
- Central College
- Des Moines Division-
  VA Cental IA Heath Care System
  Knoxville Division-
  VA Cental IA Heath Care System
- USACE District Boundary
- Des Moines/Skunk Rivers Basin (18,809.7 Sq. Mi.)
- Des Moines Recreational River & Greenbelt (638.6 Sq. Mi.)
- Drainage & Levee District
- County Boundary
- City

Map dated 5 June, 2008

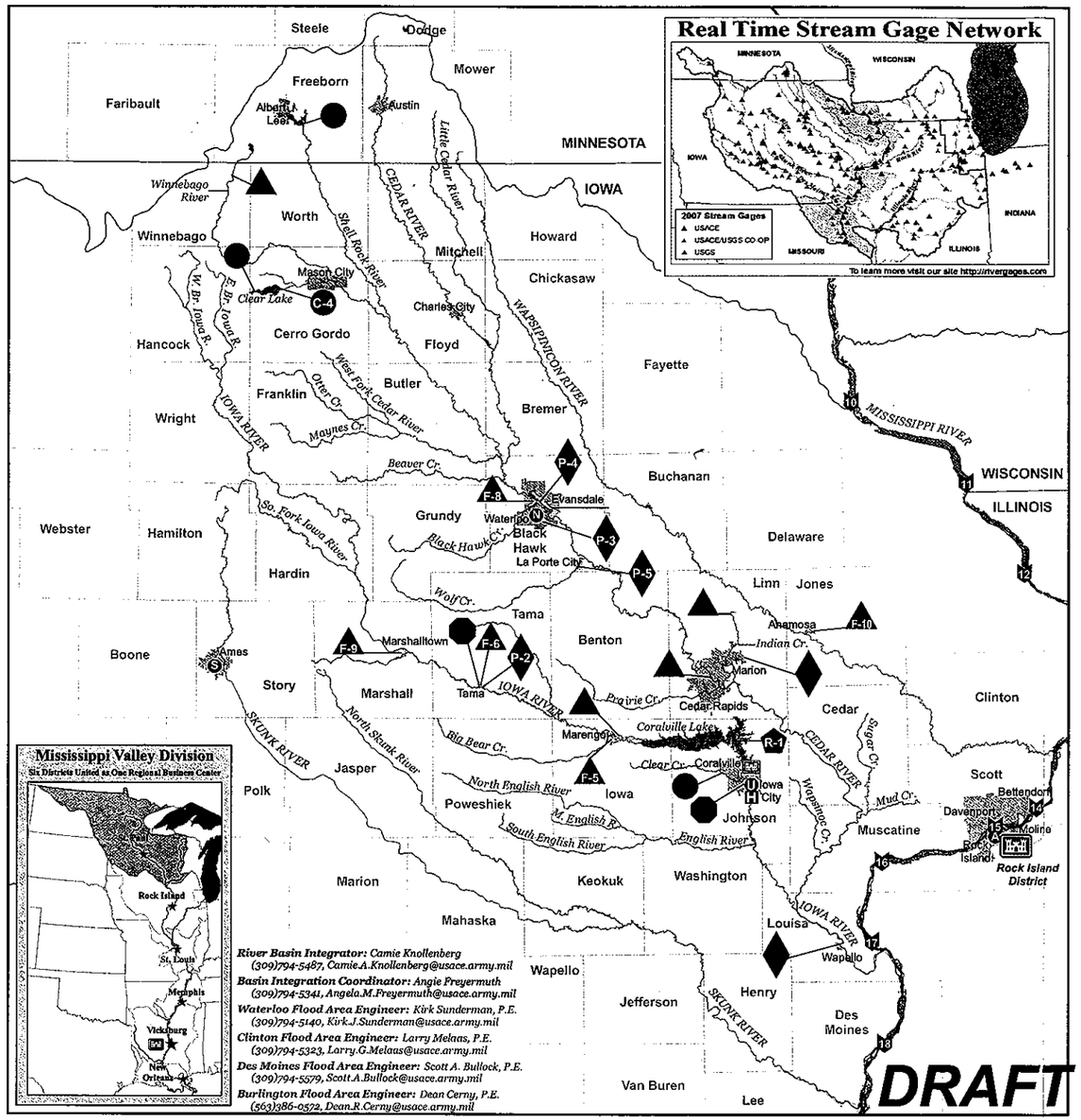
Regional Team Members Include

US Army Corps of Engineers Rock Island District
USGS science for a changing world
DNR
Upper Mississippi River Basin Association
The Nature Conservancy. Protecting nature. Preserving life.
DUCKS UNLIMITED

Iowa & Cedar Rivers Basin

Corps Contributions to Interagency Integrated Water Resources Management

1995 - 2015



Map Prepared by the Rock Island District - Planning, Programs and Project Management GIS Team.

Iowa & Cedar Rivers Basin delineated as HUC 0708 by USGS as described at http://water.usgs.gov/GIS/huc_name.html

FLOOD DAMAGE REDUCTION

- F-1 Indian Creek Section 205
- F-2 Time Check Section 205
- F-3 Amana Levee Repair
- F-4 Winnebago River Section 205

PL84-99

- F-5 Marengo, IA Local Flood Protection Project
- F-6 Tama, IA Local Flood Protection Project
- F-7 Evansdale, IA Local Flood Protection Project
- F-8 Waterloo, IA Local Flood Protection Project
- F-9 Marshalltown, IA Local Flood Protection Project
- F-10 Manchester, IA Section 205

Regional Studies

- National Levee GIS Database

EMERGENCY BANK PROTECTION

- S-1 Sac & Fox Tribe in Iowa
- S-2 Iowa River, Iowa City, IA

RECREATION

- R-1 Coralville Reservoir

REGULATORY

Rock Island District has regulatory responsibility for the State of Iowa.

ECOSYSTEM RESTORATION

Section 206

- C-1 Clear Creek, IA
- C-2 Freeborn County, MN
- C-3 Ventura Marsh, IA

General Investigations

- C-4 Clear Lake, IA Reconnaissance Study

INFORMATION SERVICES & DECISION SUPPORT

Section 22 Planning Assistance to States (PAS)

- P-1 Marion, IA Mapping
- P-2 Sac & Fox Tribe in Iowa
- P-3 Black Hawk County, IA
- P-4 Waterloo Riverwalk, IA
- P-5 La Porte City, IA

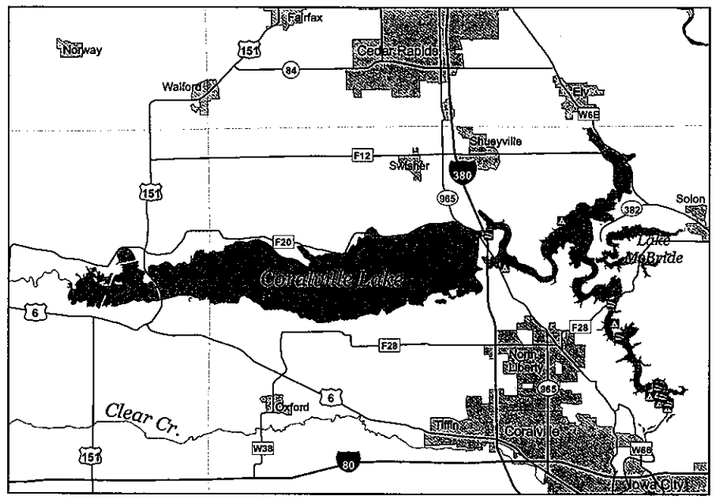
Flood Plain Management Services (FPMS)

- P-6 Iowa River Streambank Erosion Control & Evaluation

Planning Phase
Design Phase
Implementation/Construction Phase
Operational Phase/Study Completed

For more information about our projects, visit
http://www2.mvr.usace.army.mil/projects/index.cfm

Coralville Lake



- Rock Island District Headquarters
- Coralville Lake Visitors Center
- Lock & Dam
- USACE Boat Launch
- USACE Campground
- Augustana College
- University of Iowa
- Northern Iowa University
- Iowa State University
- Iowa City VA Medical Center
- State Boundary
- USACE District Boundary
- Iowa & Cedar Rivers Basin (12,654 Sq. Mi.)
- Drainage & Levee District
- County Boundary
- City

Map dated 4 June, 2008

Regional Team Members Include

USGS science for a changing world

DNR

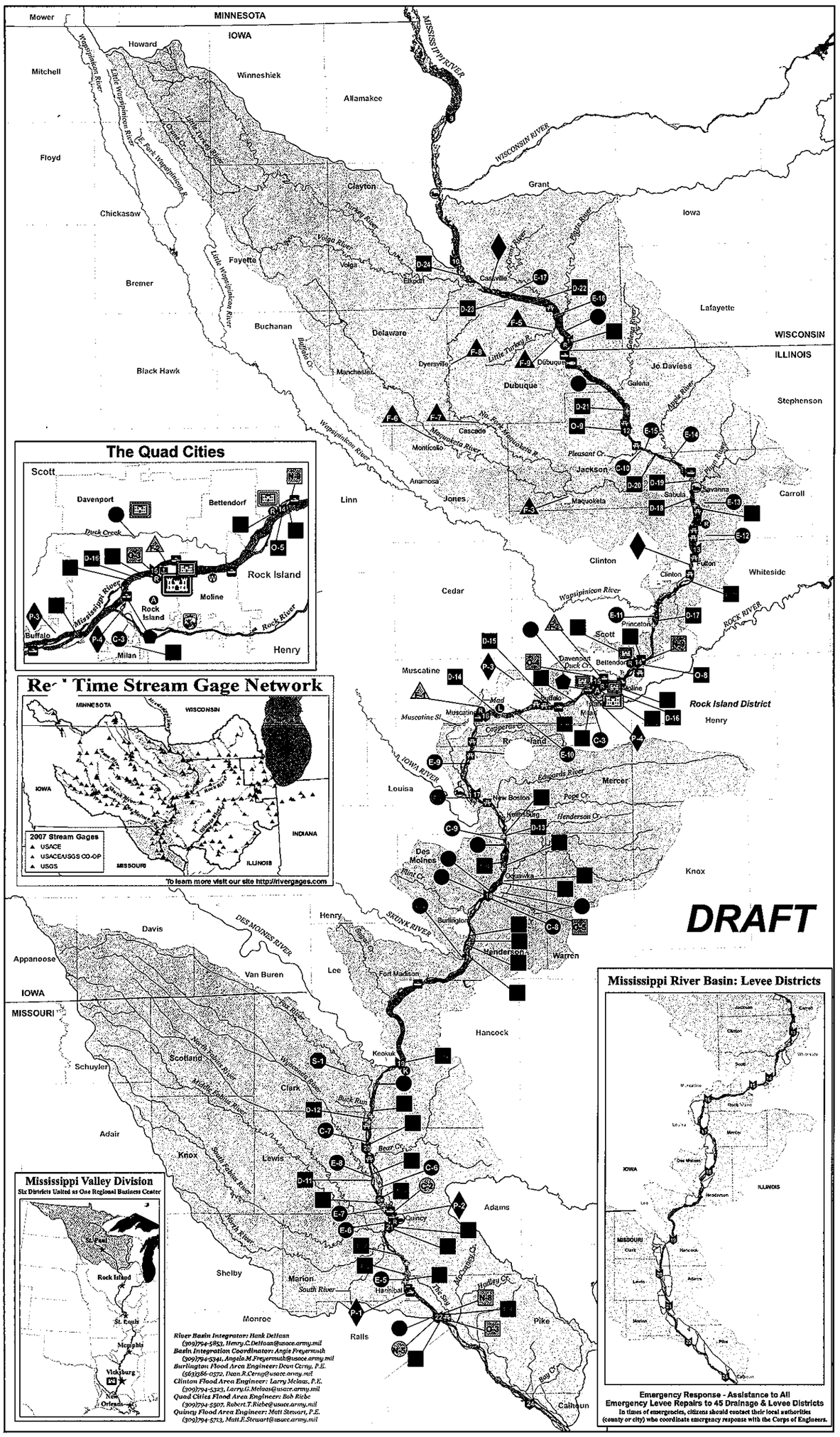
The Nature Conservancy: Protecting nature. Preserving life.

DUCKS UNLIMITED

Mississippi River Basin

Corps Contributions to Interagency Integrated Water Resources Management

1995-2015



The Quad Cities

Real Time Stream Gage Network

To learn more visit our site http://rivergages.com

Mississippi Valley Division

Six Districts United as One Regional Business Center

River Basin Integrator: Hank DeHaan (309)794-5853, Henry.C.DeHaan@usace.army.mil
Basin Integration Coordinator: Angie Freyermuth (309)794-5341, Angela.M.Freyermuth@usace.army.mil
Burlington Flood Area Engineer: Dean Cerny, P.E. (563)686-6272, Dean.R.Cerny@usace.army.mil
Clinton Flood Area Engineer: Larry Melcas, P.E. (309)794-5323, Larry.G.Melcas@usace.army.mil
Quad Cities Flood Area Engineer: Bob Riebe (309)794-5307, Robert.T.Riebe@usace.army.mil
Quincy Flood Area Engineer: Matt Stewart, P.E. (309)794-5713, Matt.E.Stewart@usace.army.mil

ECOSYSTEM RESTORATION

Environmental Management Program
- E-1 Fox Island, MO HREP
- E-2 Huron Island, IL HREP
- E-3 Pool 12 Overwintering HREP IA/IL
- E-4 Lake Odessa, IA HREP
- E-5 Bay Island, MO HREP
- E-6 Monkey Chute, MO HREP
- E-7 Cottonwood Island, MO HREP
- E-8 Gardner Division , IL HREP
- E-9 Big Timber, IA HREP
- E-10 Andalusia Refuge, IL HREP
- E-11 Princeton Refuge, IA HREP
- E-12 Potters Marsh, IL HREP
- E-13 Spring Lake, IL HREP
- E-14 Brown's Lake, IA HREP
- E-15 Pleasant Creek, IA HREP
- E-16 Pool 11 Islands, IA/WI HREP
- E-17 Bertom-McCartney Lakes, WI HREP

Navigation & Ecosystem Sustainability Program (NESP)
- N-1 Fish Passage Lock & Dam 22
- N-2 Pool 18 Water Level Management
- N-3 Pool 18 Island Building
- N-4 Pool 11 Island Building

Section 206
- C-1 Duck Creek, IA
- C-2 Quincy Bay, IL
- C-3 Milan Bottoms, IL

Section 204
- C-4 Henderson 3, IL
- C-5 Blackhawk Bottoms, IA

Section 1135
- C-6 Mississippi River Mast Tree Planting, IL
- C-7 Buck Run, MO
- C-8 Oquawka, IL
- C-9 Mississippi River Mast Tree Planting, IA
- C-10 Mississippi River Mast Tree Planting, IA

FLOOD DAMAGE REDUCTION
- F-1 Mud Creek at Muscatine, IA
- F-2 Davenport, IA
- F-3 Maquoketa, IA Sec. 205
- F-5 Little Maquoketa River, IA Sec. 205 & 208
- F-6 Monticello, IA Sec. 205
- F-7 Cascade, IA Sec. 205
- F-8 Dyersville, IA Sec. 205
- F-9 Couler Valley, IA Sec. 205

Regional Studies
- Mainstem Levee Systems Evaluation Project (Funded by FEMA)
- National Levee GIS Database
- Upper Mississippi River Comprensive Plan
- Upper Mississippi River System Flow Frequency Study

EMERGENCY BANK PROTECTION

Section 14
- S-1 Highway 61 Bridge, Fox River, MO

INFORMATION SERVICES & DECISION SUPPORT

Section 22 Planning Assistance to States (PAS)
- P-2 Mid America Port Commission Study
- P-3 Buffalo, IA
- P-4 Sunset Marina, Rock Island, IL

Flood Plain Management Services (FPMS)
- P-1 Hannibal Harbor Recon Study (905b)
- P-5 Joyces Slough, Clinton, IA
- P-6 Jack Oak Slough Siltation & Erosion Study

NAVIGATION

Navigation & Ecosystem Sustainability Program (NESP)
- N-5 Switchboats Lock & Dam 22
- N-6 New 1200' Lock, Lock & Dam 21
- N-7 New 1200' Lock, Lock & Dam 20
- N-8 New 1200' Lock, Lock & Dam 22
- N-9 Lock & Dam 14 Mooring Cells

Operations & Maintenance
- O-1 Mill Creek South Slough, Illinois
- O-2 Mississippi River Project Office
- O-3 Lock 22 Gate Replacement
- O-4 Lock & Dam 15 Hydroturbine
- O-5 Lock & Dam 18, Dam Rehabilitation
- O-6 Lock & Dam 19 Rehabilitation & Major Maintenance
- O-7 Lock & Dam 11 Rehabilitation & Major Maintenance
- O-8 Lock & Dam 14 Rehabilitation & Major Maintenance
- O-9 Lock & Dam 12 Rehabilitation & Major Maintenance

FY07 Channel Maintenance Dredging Projects
- M-1 Lock 22 Lower Cut
- M-2 Turtle Island Cut
- M-3 Hogback/Lone Tree Cut
- M-4 Howards Crossing Cut
- M-5 Gregory Lower Cut
- M-6 Kemp's Landing Lower Cut
- M-7 Craigel Island Cut
- M-8 Burlington Bluff Cut
- M-9 Oquawka Cut
- M-10 Benton Island Cut
- M-11 Keithsburg Lower Cut
- M-12 Buffalo Cut
- M-13 Linwood Cut
- M-14 Centennial Bridge Cut
- M-15 Lock 15 Upper Cut
- M-16 Lock 14 Upper Cut
- M-17 Sabula Lower Cut

Dredged Material Management (DMMP)
- D-1 Lock 21 Lower
- D-2 Oquawka Reach
- D-3 Lock 22 Reach
- D-4 Whitney Light
- D-5 NE Missouri Power Reach/Bebee Island
- D-6 Hogback Reach
- D-7 Kemps Craigel Reach
- D-8 Benton Island
- D-9 Bass Island
- D-10 Beaver Island
- D-11 Howard's Crossing/La Grange Reach
- D-12 Buzzard Island
- D-13 Keithsburg Reach
- D-14 Hershy Chute
- D-15 Buffalo
- D-16 Lock 15 Lower Reach
- D-17 Steamboat Slough
- D-18 Sabula Reach
- D-19 Savanna Bay
- D-20 Maquoketa River
- D-21 Island 241 Light
- D-22 Findley's Landing
- D-23 Hurricane Island
- D-24 Turkey River Reach

RECREATION
- R-1 Sunset Boat Basin

REGULATORY

Rock Island District has lead regulatory responsibility for the State of Illinois, the State of Iowa, and northeast Missouri.
St. Paul District has lead regulatory responsibility for the State of Minnesota and the State of Wisconsin.

Planning Phase
Design Phase
Implementation/ Construction Phase
Operational Phase/ Study Completed

For more information about our projects, visit http://www2.mvr.usace.army.mil/projects/index.cfm

- Rock Island District Headquarters
- Quad Cities Mississippi River Project Office
- Mississippi Valley Regional Construction Office
- Mississippi Valley Regional Flood Fighting Center
- Lock & Dam
- Small Boat Harbor
- USACE Ranger Station
- USACE Recreation Area
- Thalweg Placement Site for Dredged Material
- Rock Island Field Office, U.S. Fish & Wildlife Service, Region 3
- Fish & Wildlife Service Refuge Office
- United States Coast Guard Office
- National Mississippi River Museum & Aquarium
- Augustana College
- University of Iowa, Lucille A. Carver Mississippi Riverside Environmental Research Station
- WIU: Kibbie Life Sciences Station
- Future WIU Quad Cities Campus
- USACE District Boundary
- Mississippi River Basin (16,621.5 Sq. Mi.)
- Drainage & Levee District
- County Boundary
- City

Map Prepared by the Rock Island District - Planning, Programs and Project Management GIS Team

Upper Mississippi River Basins delineated as HUC 0706 & 0711 as described at http://water.usgs.gov/GIS/huc_name.html

Map dated 9 June, 2008

DRAFT

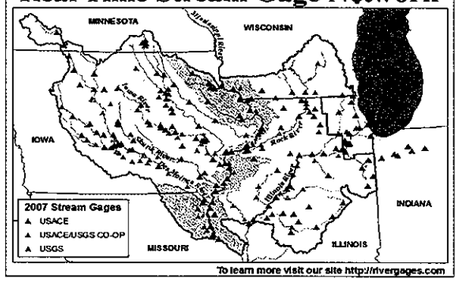
Regional Team Members Include

Rock River Basin

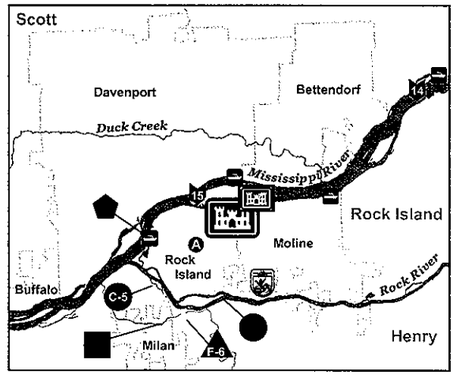
Corps Contributions to Interagency Integrated Water Resources Management

1995 - 2015

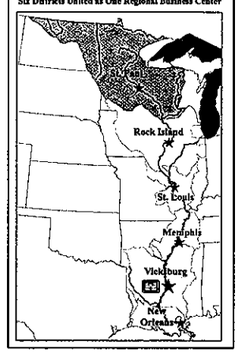
Real Time Stream Gage Network



The Quad Cities



Mississippi Valley Division
Six Districts United as One Regional Business Center



FLOOD DAMAGE REDUCTION
- F-1 Keith Creek, Rockford, IL
- F-2 Loves Park, IL
- F-6 Milan/Big Island, IL Local Flood Protection Project

PL84-99
- F-3 DeKalb, IL Local Flood Protection Project
- F-4 Penny Slough Drainage & Levee District
- F-5 Zuma-Canoe Special Service Area

Regional Studies
- National Levee GIS Database

EMERGENCY BANK PROTECTION
- S-1 County Highway 64, Rock Island County, IL Section 14

ECOSYSTEM RESTORATION

Section 206
- C-1 Horicon Marsh, WI (On Hold)
- C-2 Lake Koshkonong, WI (On Hold)
- C-3 Kettle Morraine, WI (On Hold)
- C-4 Lake Belle View, WI
- C-5 Milan Bottoms, IL

Section 22
- C-6 Coon Creek Watershed, IL
- C-7 Lake Sinnissippi, WI

Rock River
- R-1 Rock River, IL Basin Study
- R-2 Steel Dam, Rock River

NAVIGATION

Operations & Maintenance
- O-1 Mill Creek South Slough, Illinois

RECREATION
- R-1 Sunset Boat Basin

REGULATORY

Rock Island District has lead regulatory responsibility for the State of Illinois.
St. Paul District has lead regulatory responsibility for the State of Wisconsin.

Planning Phase
Design Phase
Implementation/Construction Phase
Operational Phase/Study Complete

For more information about our projects, visit http://www2.mvr.usace.army.mil/projects/index.cfm

- Rock Island District Headquarters
- Mississippi Valley Regional Flood Fighting Center
- Rock Island Field Office, U.S. Fish & Wildlife Service, Region 3
- Small Boat Harbor
- Lock & Dam
- A Augustana College
- N Northern Illinois University
- W University of Wisconsin
- H William S. Middleton Memorial Veterans Hospital Madison, WI
- State Boundary
- USACE District Boundary
- Rock River Basin (10,962.1 Sq. Mi.)
- Drainage & Levee District
- County Boundary
- City

Map dated 5 June, 2008

Map Prepared by the Rock Island District - Planning, Programs and Project Management GIS Team.

Rock River Basin delineated as HUC 0709 by USGS as described at http://water.usgs.gov/GIS/huc_name.html

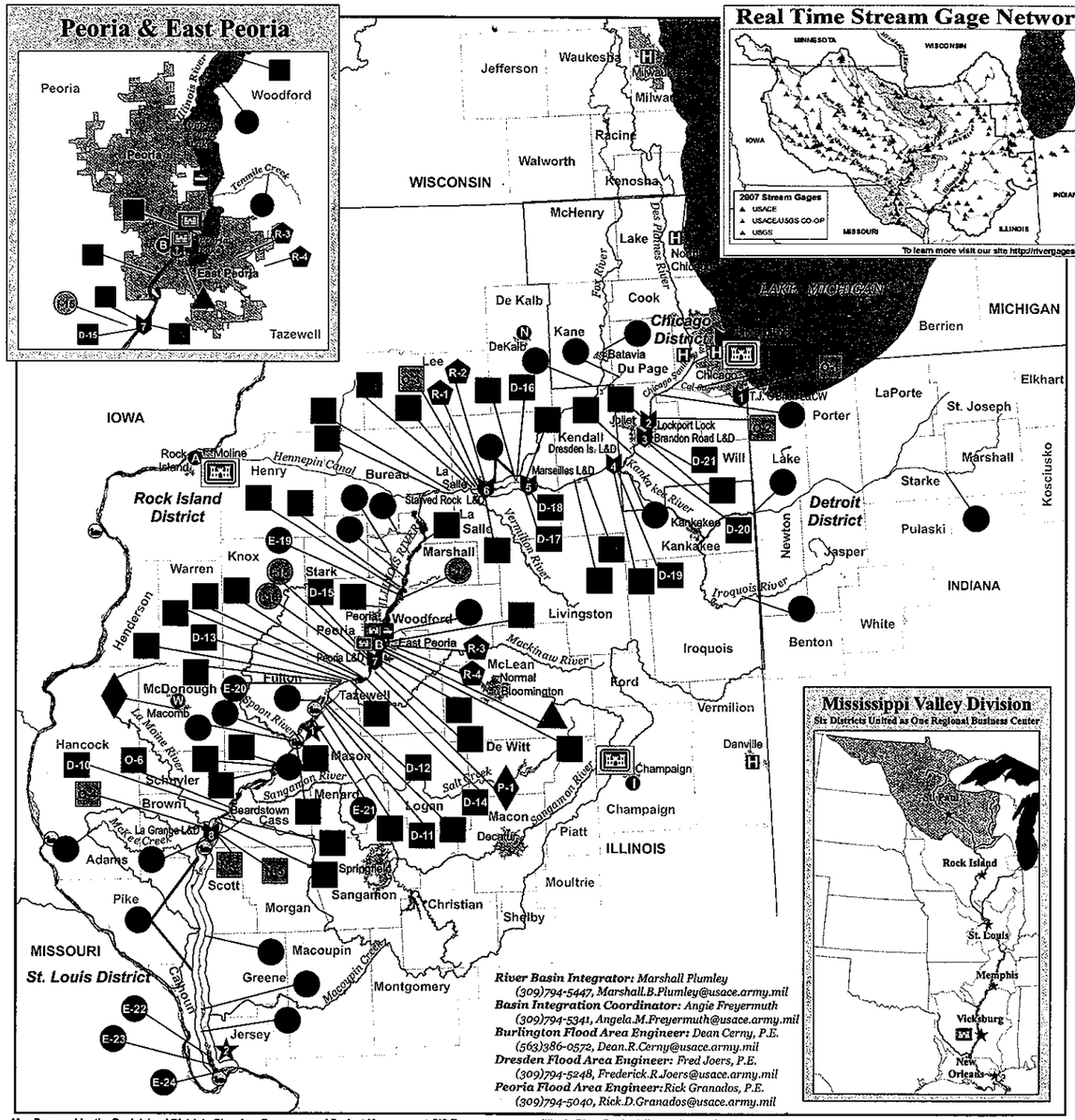
Regional Team Members Include

US Army Corps of Engineers, Rock Island District; USGS science for a changing world; Illinois Department of Natural Resources; Upper Mississippi River Basin Association; The Nature Conservancy, Protecting Nature. Preserving Life.; DUCKS UNLIMITED

Illinois River Basin

Corps Contributions to Interagency Integrated Water Resources Management

1995 - 2015



Rock Island District Headquarters

Chicago District Headquarters

Construction Engineering Research Laboratory

Illinois Waterway Project Office

Illinois Construction Office

Lock & Dam

EMP - Long Term Resource Monitoring Program, Havana Field Station

EMP - Long Term Resource Monitoring Program, Pool 26 Field Station

Small Boat Harbor

Fish & Wildlife Service Refuge Office

United States Coast Guard Office

- (A) Augustana Coll.
- (B) Bradley Univ.
- (I) Univ. of Illinois
- (N) Northern Illinois Univ.
- (W) Western Illinois Univ.

USACE District Boundary

State Boundary

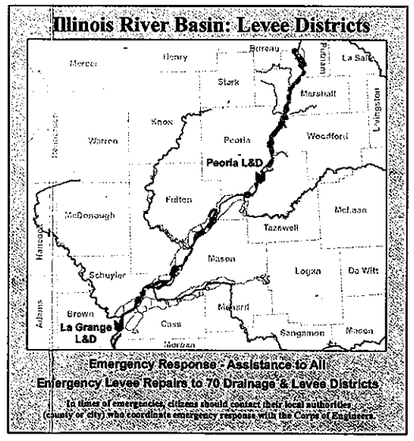
519 Reach Study

City

County Boundary
Illinois River Basin (28,870.9 Sq. Mi.)

Drainage & Levee District

- (H) Edward Hines Jr. VA Hospital Hines, IL
- (H) North Chicago VA Med. Ctr. North Chicago, IL
- (H) Jesse Brown VA Med. Ctr. Chicago, IL
- (H) VA Illiana Health Care System Danville, IL
- (H) Clement J. Zablocki VA Med. Ctr. Milwaukee, WI



ECOSYSTEM RESTORATION

Section 519
- I-1 Kankakee River Riffles
- I-2 Iroquois River
- I-3 Waubonsie Creek
- I-4 LaGrange Pool
- I-5 McKee Creek
- I-6 Alton Pool
- I-7 Tenmile Creek
- I-8 Senachwine Creek
- I-9 Crow Creek West
- I-10 Starved Rock Pool
- I-11 Batavia Dam
- I-12 Blackberry Creek
- I-13 Yellow River
- I-14 Peoria Riverfront (Upper Island)
- I-15 Pekin Lake North Unit
- I-16 Pekin Lake South Unit

Environmental Management Program (EMP)
- E-16 Rice Lake
- E-17 Godar Refuge
- E-18 Alton Side Channel
- E-19 Peoria Lake
- E-20 Banner Marsh
- E-21 Chautauqua Refuge
- E-22 Stump Lake
- E-23 Swan Lake
- E-24 Calhoun Point

Navigation & Ecosytem Sustainability Program (NESP)
- N-1 Middle Peoria Pool Backwaters
- N-2 Emiquon West
- N-3 Twin Islands

Section 206
- C-1 Kankakee River State Line
- C-2 Emiquon East

Section 1135
- C-3 Spunky Bottoms

Additional Projects
- A-1 Aquatic Nuisance Barrier

FLOOD DAMAGE REDUCTION

- F-1 East Peoria Levee & Drainage District Sec. 205

Regional Studies

Mainstem Levee Systems Evaluation Project (Funded by FEMA)
National Levee GIS Database
Upper Mississippi River Comprehensive Plan
Upper Mississippi River System Flow Frequency Study

INFORMATION SERVICES & DECISION SUPPORT

Section 22 Planning Assistance to States (PAS)
- P-1 Pekin, IL
- P-2 Macomb, IL

RECREATION

- R-1 I&M Canal Planning Assistance to States (PAS) Sec. 22
- R-2 Illinois River Visitor Center
- R-3 Fondulac Reservoir
- R-4 Farmdale Reservoir

REGULATORY

Rock Island District has lead regulatory responsibility for the State of Illinois.

Planning Phase

Design Phase

Implementation/Construction Phase

Operational Phase/Study Completed

For more information about our projects, visit http://www2.mvr.usace.army.mil/projects/index.cfm

DRAFT

NAVIGATION

Navigation & Ecosystem Sustainability Program (NESP)
- N-4 Peoria New 1200' Lock
- N-5 LaGrange New 1200' Lock
- N-6 LaGrange Mooring Cell

Operations & Maintenance
- O-1 T.J. O'Brien Lock & Contolling Works Rehabilitation
- O-2 Lockport Upper Pool Approach Dike & Wall
- O-3 Plum Island Easement
- O-4 La Grange Lock Rehabilitation
- O-5 Peoria Lock Hydraulics
- O-6 Sangamon Sediment Trap

FY07 Channel Maintenance Dredging Projects
- M-1 Lockport Lower Cut
- M-2 Brandon Road Lower Cut
- M-3 Treats Island Cut
- M-4 Dresden Island Lower Cut
- M-5 Grist Island Cut
- M-6 Marseilles Lock Lower Cut
- M-7 Bull's Island Upper Cut
- M-8 Starved Rock Lower Cut
- M-9 Deer Park Light Cut
- M-10 Spring Creek/Huse Slough Cut
- M-11 Henry Cut
- M-12 Senachwine Cut
- M-13 Blue Creek Cut
- M-14 USACE Boat Yard at Peoria
- M-15 Pekin Bend Cut
- M-16 LaMarsh Creek/Pekin Bend Cut
- M-17 Mackinaw River Cut
- M-18 Kingston Mines Cut
- M-19 Lancaster Landing Cut
- M-20 Duck Island Cut
- M-21 Senate Island Cut
- M-22 Quiver Island Cut
- M-23 Grand Island Cut
- M-24 Anderson Lake Cut
- M-25 Barr Island Cut
- M-26 Briggs Landing Cut

Dredged Material Management Program (DMMP)
- D-1 Quiver Island
- D-2 Lancaster Landing
- D-3 Kickapoo Creek
- D-4 Senachwine Creek
- D-5 Spring Valley
- D-6 Lucas Berg Confined Disposal Facility
- D-7 Grand Island
- D-8 LaSalle Reach
- D-9 Grist Island
- D-10 Beardstown
- D-11 Senate Island/Duck Island
- D-12 Copperas Creek
- D-13 Mackinaw River/Kingston Mines
- D-14 Pekin Bend/LaMarsh Creek
- D-15 Peoria Lock Lower/Lick Creek
- D-16 Bull's Island
- D-17 Milliken Creek
- D-18 Marseilles Canal
- D-19 Dresden Island
- D-20 Treats Island
- D-21 Brandon Road Lower

OPERATIONS AND MAINTENANCE ACTIVITIES

1. T.J. O'Brien Lock & Controlling Works
   2007 - Repair guidewall and lock gates.
2. Lockport Lock
   2006 - Repaired upper left & right valves.
   2007 - Replace roller guides for upper service gate.
3. Brandon Road Lock & Dam
   2007 - Repair tainter gate cable connections.
4. Dresden Island Lock
   2006 - Repaired wall at upper right gate anchorage.
5. Marseilles Lock & Dam
   2006 - Repaired upper right valve.
   2007 - Repair lock chamber concrete.
   Repair upper miter gate machinery.
6. Starved Rock Lock & Dam
   2006 - Repaired one tainter gate.
   2007 - Repair upper valves and roller guides.
7. Peoria Lock & Dam
   2006 - Replaced 4 wickets.
   2007 - Replace 15 wickets.
8. La Grange Lock & Dam
   2006 - Replaced 2 damaged wickets.
   2007 - Replace 15 wickets.

Map Dated 11 August,

Map Prepared by the Rock Island District - Planning, Programs and Project Management GIS Team.

Illinois River Basin delineated as HUC 0712 by USGS as described at http://water.usgs.gov/GIS/huc_name.html

Regional Team Members Include