



MINUTES

Iowa Rivers and Waterways Study Committee

December 10, 2013

MEMBERS PRESENT:

Senator Dick L. Dearden, Co-chairperson
Senator William A. Dotzler, Jr.
Senator David Johnson
Senator Brian Schoenjahn

Representative Lee Hein, Co-chairperson
Representative Rob Bacon
Representative Charles Isenhart
Representative Jarad J. Klein
Representative Patti Ruff

MEETING IN BRIEF

.....

Organizational staffing provided
by: Tim McDermott, Senior Legal
Counsel, (515) 281-8090

Minutes prepared by: Doug
Adkisson, Senior Legal Counsel,
(515) 281-3884

- I. Procedural Business
- II. Overview by State Agencies — Department of Natural Resources and Department of Agriculture and Land Stewardship
- III. Local and Private Watershed Improvement Efforts
- IV. River Restoration in Other States
- V. Lake Restoration
- VI. Financing
- VII. Urban Waterways
- VIII. Private Landowners
- IX. Committee Discussion
- X. Materials Filed With the Legislative Services Agency



I. Procedural Business

Call to Order. Temporary Co-chairperson Dearden called the meeting of the Iowa Rivers and Waterways Study Committee to order at 10:05 a.m. in Room 103 of the State Capitol.

Election of Permanent Co-chairpersons. Temporary Co-chairperson Dearden and Temporary Co-chairperson Hein were elected permanent co-chairpersons by a voice vote of committee members.

Adoption of Rules. The proposed rules for the committee were approved by voice vote.

Recess and Adjournment. Co-chairperson Dearden recessed the meeting at 12:10 p.m. for lunch and Co-chairperson Hein reconvened the meeting at 1:00 p.m. The meeting adjourned at 4:33 p.m.

Committee Action. The committee adjourned without making recommendations. Members agreed to meet again for further discussion once the 2014 Legislative Session begins.

II. Overview by State Agencies — Department of Natural Resources and Department of Agriculture and Land Stewardship

Mr. Mike Steuck, Manchester Fisheries Management Office, Department of Natural Resources (DNR). Mr. Steuck provided information regarding the necessary ingredients for river restoration, components of quality streams in Iowa, factors that affect stream quality, and the benefits of restoring rivers and streams. He emphasized the need to use solutions that provide the highest return for each dollar expended and the value of Iowa's rivers and streams to the state's economy.

Mr. Nate Hoogeveen, Director of Rivers Programs, DNR. Mr. Hoogeveen identified parties interested in river restoration (also referred to as river stabilization), the positive economic growth opportunities resulting from river restoration and healthy ecological rivers. He also described types of restoration techniques. Mr. Hoogeveen emphasized that each situation is unique requiring a different solution to dissipate river energy. He also referred to the use of floodplains and techniques to establish natural filtration systems as an alternative to the use of rock (also referred to as riprap or hard armoring) which is the traditional response to controlling and minimizing erosion along waterways such as rivers and streams.

Mr. Jim Gillespie, Director, Soil Conservation Division, Department of Agriculture and Land Stewardship (DALS). Mr. Gillespie provided information regarding the department's watershed projects around the state, including methods to improve water quality. He noted that each restoration or stabilization project begins with an analysis referred to as "Rapid Assessment of Stream Conditions Along Length" (RASCAL). He noted that each project requires a different solution, and emphasized the importance of developing local partnerships. Mr. Gillespie also commented upon the need to reduce cutting timber along rivers, slowing the incidence of vertical riverbanks, stabilizing the toe or base of riverbanks, protecting and expanding floodplains, remeandering streams, and establishing deep-rooted prairie vegetation intermixed with trees.



Questions and Comments. Co-chairperson Hein and Mr. Steuck discussed costs associated with stabilization practices; and the use of vegetation to reduce erosion, including the planting of willow trees, and the seeding of vegetation. In response to a question by Representative Bacon, Mr. Steuck commented that the use of vegetation is less expensive than using rock. In response to a question by Senator Dotzler, Mr. Steuck explained that projects are selected to receive state funding based on a number of local factors, including community participation, the availability of partners, and cooperation by landowners. Senator Johnson and Mr. Hoogeveen discussed the success of a project in Charles City to be discussed in detail later in the meeting. Senator Johnson and Mr. Gillespie discussed the use of prairie vegetation. Mr. Gillespie stated that a buffer between 60 and 120 feet is recommended, but that any real buffer is beneficial. Senator Johnson and Mr. Gillespie discussed lake restoration efforts. Senator Dotzler and Mr. Gillespie discussed the work of the Tallgrass Prairie Center at the University of Northern Iowa, and the importance of native grasses. Co-chairperson Dearden commented upon the special challenges posed by loess soils located within the Hungry Canyons region of the state.

III. Local and Private Watershed Improvement Efforts

Mr. Larry Gullett, Director, Johnson County Conservation Board. Mr. Gullett identified the needs of local communities including expertise required to provide a methodology and techniques. He discussed stream assessment protocols used as part of mitigation efforts, including the identification of suitable river and stream segments. He also stressed the need for training and education. Mr. Gullett stated that a statewide river restoration program could address local issues relating to water quality, the protection of stream banks and infrastructure, flood mitigation, the enhancement of fish and wildlife habitat, economic benefits, the mitigation needs of negative impacts resulting from development, and the removal or modification of aging and deteriorating dams. Mr. Gullett emphasized the importance of landscaping as a method to sequester agricultural nutrients in a manner comparable to wetlands.

Mr. Jerry Peckumn, Iowa Rivers Revival. Mr. Peckumn stated the mission of the Iowa Rivers Revival is to restore and protect Iowa rivers for the enjoyment of their users. He identified river-related activities sponsored by his organization and river restoration projects. Mr. Peckumn discussed the need to reduce the entry of nutrients into streams, mitigate the effects of flooding, and increase natural habitat for wildlife. Mr. Peckumn advocated the establishment of a statewide river restoration program that would include public-private partnerships, based on statewide criteria and regional targeting, provide education and training, set priorities for funding river restoration projects, and provide for research and monitoring. Mr. Peckumn recommended that the General Assembly appropriate \$300,000 to DNR to conduct a planning process for a statewide program.

Mr. Todd Sutphin, State Watershed Coordinator, Iowa Soybean Association (ISA). Mr. Sutphin appeared as a substitute for Mr. Roger Wolf, Director of Environmental Services, ISA. Mr. Sutphin stated that a goal of ISA is to develop policies and programs that help farmers expand profit opportunities while promoting environmentally sensitive production using the soybean checkoff and other resources. He then discussed environmental programs and services provided by ISA, including its support of projects in 65 watersheds. Mr. Sutphin also discussed the restoration of meandering rivers curving back and forth and so-called oxbows in Iowa lakes and rivers and its use as a denitrification practice. Mr. Sutphin emphasized the importance of



Iowa Rivers and Waterways Study Committee

developing a watershed-wide strategy, working cooperatively with affected farmers to tailor-fit approaches best suited to their situations, and ensuring community participation. He recommended developing watershed plans for priority watersheds identified as part of a state nutrient strategy.

Questions and Comments. Senator Johnson and Mr. Gullett discussed the use of data furnished by the Iowa Geological and Water Survey (IGWS). Representative Ruff commented that the expanding dead-zone in the Gulf of Mexico is caused by nutrients. Mr. Gullett responded by discussing the importance of restoring natural habitat and diversity as a method to constrain nutrients from entering into waterways. Senator Dotzler noted that restoration is closely associated with farming practices. Senator Dotzler and Mr. Peckumn discussed their experiences along the Cedar River, and the need for expertise when planning restoration.

IV. River Restoration in Other States

Mr. Martin Melchior, Regional Director, Interfluve. Mr. Melchior discussed the economic importance of rivers and river restoration in terms of tourism, land, and job creation. He identified river restoration practices from other states which included the use of riparian vegetation, habitat recovery, spawning habitat creation, bank stabilization and reconstruction, channel relocation as required by mitigation, remeandering of streams, urban channel reclamation, incised channel reclamation, ditch reclamation, wetland channel reclamation, golf course reclamation, fish bypass channel routes, culvert fish passages at blockages, dam removal, passive bluff stabilization, and grade control to prevent headcut migration and soil loss. Mr. Melchior discussed the varying costs of projects and that typically in other states with statewide programs, projects are led by local watershed groups with assistance from dedicated state staff who hire prequalified experts in design and construction. He commented that states rarely have a unified statewide plan, but instead either have active, well-organized state plans or more commonly piecemeal projects or a general plan. Mr. Melchior identified essential components of a state river restoration program including participation by multiple cooperating partners, a dedicated restoration staff at the state level, adequate program and project funding, watershed group initiation and assistance, technical guidance from the state, enforceable dam safety laws, and qualified designers.

Questions and Comments. Senator Johnson and Mr. Melchior commented upon environmental and commercial impacts caused by the introduction of nonnative species, including Asian carp. Representative Isenhart commented upon flood mitigation projects and methods to reduce the impacts of flooding. Senator Dotzler commented upon the use of rivers in urban areas as a community attraction, citing the Riverwalk in San Antonio as a successful model of reclamation and economic development.

V. Lake Restoration

Mr. Mike McGhee, Lakes Program Manager, DNR. Mr. McGhee stated that Iowa has 134 significant public lakes, noting that lake restoration is an investment in Iowans' quality of life. He noted that Iowa lakes generate \$1.6 billion in annual spending by Iowans. He also stated that most Iowa lakes have been rated as having poor to bad water quality. He identified three common impairments including algae, turbidity, and bacteria. According to Mr. McGhee, the two leading causes of water pollutants are nutrients and soil. He described DNR's lake restoration program,



and the methodology used for prioritizing lake projects including factors such as water quality, the benefit to the public, restoration potential, and the hydrology of the watershed where the lakes are located. Mr. McGhee outlined goals of lake restoration, including water clarity; beaches meeting recreational use standards; sustainable, healthy lake systems; and the removal of lakes from impaired water lists. Finally, Mr. McGhee stressed the importance of community-based planning in the lake restoration process.

Questions and Comments. In response to questions by Co-chairperson Hein, Mr. McGhee noted that communities are not always receptive to DNR interventions. The agency often depends upon a local community to guide the project.

VI. Financing

Mr. Todd Bishop, Grants Coordinator, DNR. Mr. Bishop discussed private lands wetland restoration, noting that the premier example is Minnesota's Reinvest in Minnesota (RIM) Reserve conducted in partnership with the United States Department of Agriculture, Natural Resource and Conservation Service's (NRCS) Wetlands Preserve Program (WRP). Mr. Bishop discussed Iowa's use of federal funds to support river conservation projects by leveraging state money to receive NRCS moneys. He discussed efforts to improve water quality and mitigate flooding through cooperation with landowners, including the use of perpetual conservation easements. He also discussed partnering with private organizations and local entities, including county conservation boards, the Iowa Natural Heritage Foundation, and Pheasants Forever.

Questions and Comments. Senator Dotzler and Mr. Bishop discussed how projects are prioritized. Mr. Bishop noted that DNR considered the impact of an investment and the amount of water held back through mitigation efforts. Mr. Bishop commented upon the use of Light Detection And Ranging (LIDAR) technology. In response to questions by Representative Isenhardt, Mr. Bishop commented that DNR cooperates with DALs.

VII. Urban Waterways

Dr. Mimi Wagner, Landscape Architecture, LLC and Assistant Professor of Landscape Architecture, Iowa State University (ISU). Dr. Wagner stated that the goal of river restoration should be to develop resilient and self-sustaining natural systems. She described the stream assessment protocol that she uses in lieu of RASCAL. Dr. Wagner also described the stream assessments and projects that she has conducted in Ames, noting that society is changing its views regarding rivers. She discussed a number of restoration projects, including those affecting the West Nishnabotna River in Pottawatomie County and the Ada Hayden tributaries. She commented upon problems associated with stream bank erosion and also discussed in detail the work of her ISU students in stabilizing College Creek, characterized as an "incised" stream in which the banks on both sides are vertical, the former floodplain has been abandoned, and which contains storm water discharge from the city of Ames. Dr. Wagner opined that this may be the last project in which she utilizes rock as a stabilizing material. She emphasized the importance of native grasses and the need to revise approaches to this issue, which should include contributions by various disciplines including hydrology, civil engineering, and biology.



Iowa Rivers and Waterways Study Committee

Mr. Tom Brownlow, City Administrator, Charles City. Mr. Brownlow explained river stabilization and water quality projects recently implemented in Charles City. He discussed various aspects of the city's new river park and the positive economic impact the park has had on the city. Mr. Brownlow described permeable paving projects which have resulted in reducing storm water runoff, including by 60 percent for a 10-year event. He briefly discussed point and nonpoint sources of pollution and commented that he has begun a process of dialogue with a number of interested organizations regarding the adoption of a water quality trading program which is a voluntary exchange of pollutant reduction credits. He believed such a program would represent a more realistic method of achieving water quality standards imposed under the federal Clean Water Act. According to Mr. Brownlow, a facility with a higher pollutant control cost could purchase a pollutant reduction credit from a facility with a lower control cost thus reducing their cost of compliance.

Mr. Wayne Petersen, State Urban Conservationist, DALs. Mr. Petersen discussed the department's Urban Conservation Program. He commented that the strategy must focus on stream corridor stabilization rather than only upon bank stabilization. He described special challenges in urban areas including the existence of infrastructure, private property structures that are often at risk, confined spaces, corridors that are fragmented by multiple ownership, and increased costs associated with stabilization. Mr. Petersen emphasized the need to stabilize rather than restore the state's waterways. He also noted that stabilization must be conducted according to a comprehensive plan and detailed special problems associated with large volumes of storm water discharged within a relatively compact location such as a city. According to Mr. Petersen, the focus of a stabilization effort must be to reduce stress on a waterway system by dissipating the water's energy. He noted that habitat enhancement is often a key component of this strategy and emphasized the need to create an amenity. He also discussed a number of practices that may be employed according to the circumstances. He noted that planting trees is not always the best solution, and discussed the need to slope banks and create floodplains. Mr. Petersen also recognized the use of rock if used properly. Mr. Petersen identified six strategies, including (1) stop a downcutting bed, (2) slope back vertical bare banks (3) armor toes of slopes, (4) establish deep-rooted native prairie vegetation, (5) build a flood plain (if space and budget allow), and finally (6) remeander (if space and budget allow). He concluded by stating that by following strategies, the stream system will benefit, wildlife and fishing habitat will increase, and urban streams will be transformed into community amenities.

Questions and Comments. In response to a question by Representative Klein, Dr. Wagner stated that DNR's permit requirements were not excessive. In response to Representative Isenhart, Dr. Wagner advocated the elimination of rock as a means to stabilize waterways. Senator Johnson and Mr. Brownlow discussed the contribution made by Charles City, including the removal of a low head dam. Mr. Brownlow stated the city contributed 11 percent of the total amount. Senator Dotzler commented that he observed local reaction to the planned city park dramatically improved once persons realized the benefits accompanying development. He noted that a number of legislators were aware of the city's success. Representative Isenhart and Mr. Peterson discussed the possibility of cities requiring more storm water be kept on site during construction.



VIII. Private Landowners

Ms. Jody Kerns, Landowner near Edgewood, Iowa. Ms. Kerns explained that after the devastating floods of 1991, she and her husband Jim began implementing conservation on their farm in the Volga River floodplain. She stated that with support from NRCS, they used riprap on only the most vulnerable stretch and stabilized the remaining areas using “soil engineering,” including by installing willow posts and native planting to stabilize the river’s banks, and finally converted the most vulnerable cropland to permanent vegetation cover.

Mr. Eric Boehm, Landowner in Fayette County. Mr. Boehm noted that he became interested in stream restoration after experiencing the 1999 flood. He stated that NRCS was unable to provide a realistic solution, but that he was able to receive assistance from DNR and the federal government. He commented that a dedicated funding source is critical for landowners interested in this issue. He also stated that farmers must actively participate in this process in order for it to succeed.

IX. Committee Discussion

Senator Johnson and Senator Dotzler discussed different methods of financing efforts to mitigate flooding and enhance the environment. Senator Johnson noted that Iowans recently ratified a constitutional amendment (Art. VIII, Sec. 10) providing that each three-eighths cent in an increase in the sales tax is to be dedicated to natural resources and soil conservation; but the constitutional amendment has yet to be implemented. Senator Dotzler referred to moneys in the Taxpayers Trust Fund (Iowa Code section 8.57E) as a possible source of revenue. Senator Johnson suggested that DNR work with DAL’s State Urban Conservationist.

Senator Dotzler suggested that DNR develop a plan and recommend funding for river restoration projects that is designed to achieve the following goals: (1) ensure a cost-effective positive return on investment for the citizens of Iowa; (2) ensure local community commitment to river and watershed protection; (3) ensure significant improvement in water quality and quality of Iowa riverways; (4) provide for a sustainable, healthy, and safe functioning river system; (5) improve river recreation access and habitat for fishing, hunting, and wildlife; and (6) take efforts for the removal of the river segment from the impaired waters list. He noted the process and criteria used by DNR to recommend projects be similar to that used for lake restoration in terms of biologic controls; reduction in the delivery of sediment and nutrients, safety, biota, and sustainability. Co-chairperson Hein noted that the committee had received voluminous information during the period and time may be required for further analysis. The committee by voice vote approved meeting a final time after the commencement of the 2014 Legislative Session.

X. Materials Filed With the Legislative Services Agency

The following materials listed were distributed at or in connection with the meeting and are filed with the Legislative Services Agency. The materials may be accessed from the <Committee Documents> link on the committee’s Internet site:

<https://www.legis.iowa.gov/committees/committee?endYear=2013&groupID=19055>

1. Tentative Agenda



Iowa Rivers and Waterways Study Committee

2. **Adopted Rules**
3. **Presentation — Mr. Mike Steuck**
4. **Handout — Mr. Nate Hoogeveen**
5. **Presentation — Mr. Jim Gillespie**
6. **Handout — Mr. Jim Gillespie**
7. **Handout — Senator David Johnson**
8. **Handout — Mr. Larry Gullett**
9. **Presentation — Mr. Jerry Peckumn**
10. **Presentation — Mr. Todd Sutphin**
11. **Presentation — Mr. Martin Melchior**
12. **Handout — Mr. Mike McGhee**
13. **Presentation — Mr. Todd Bishop**
14. **Presentation — Dr. Mimi Wagner**
15. **Presentation — Mr. Tom Brownlow**
16. **Presentation — Mr. Wayne Petersen**
17. **Presentation — Ms. Jody Kerns**
18. **Handout — Ms. Jody Kerns**
19. **Handout — Mr. Eric Boehm**
20. **Briefing — LSA Legal Services Division**

39741C