

Watershed Planning Advisory Council



Annual Report to the Iowa Legislature

January 2015



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Watershed Planning Advisory Council

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This report covers the period of time from January 1, 2014 through December 31, 2014.

**Watershed Planning Advisory Council
2014 Annual Report to the Legislature
January 2015**

Background

The Watershed Planning Advisory Council (WPAC) was established by the 2010 Iowa Legislature ([House File 2459](#)) to assemble a diverse group of stakeholders (Attachment A) who would review research and make periodic recommendations to state and federal agencies regarding methods to best protect water resources in Iowa, assure an adequate supply of water, mitigate and prevent floods, and coordinate the management of the state's water resources in a sustainable, fiscally responsible, and environmentally conscientious manner.

The advisory council consists of mostly non-governmental organizations and associations that were involved in the 2008 Watershed Quality Planning Task Force (WQPTF) – (<http://www.iowaagriculture.gov/WPAC/pdf/finallegislativereport2007.pdf>). That task force made recommendations to the Iowa Legislature in 2009 on how to improve watershed planning effectiveness and led to creation of a Water Resources Coordinating Council (WRCC) (<http://www.iowaagriculture.gov/WRCC.asp>).

The WPAC seeks to continue its original work of the WQPTF by consulting with other governmental or non-governmental organizations in the development of its future recommendations for watershed planning and implementation effectiveness, and advise the WRCC member agencies and the legislature as necessary on these matters.

The WPAC committee received reappointment in 2011. During 2014, WPAC met in March, May, July, September and November. WPAC representatives attended and provided updates during the Water Resources Coordinating Council (WRCC) meetings. Representatives of WRCC provided updates at WPAC meetings, including point and non-point source and measures sub-committee updates on the Iowa Nutrient Reduction Strategy (INRS).

This report provides updates on the WPAC recommendations made in its 2013 legislative report, including actions taken on those recommendations and any follow-up recommendations from WPAC. Recommendations include documentation of activities, and the needs and challenges toward making progress in protecting Iowa's water resources, identified by WPAC in coordination with all agencies and stakeholders in the management of the state's water resources in a sustainable, fiscally responsible, and environmentally conscientious manner.

Summary of 2014 Recommendations

The WPAC recognizes that the greatest challenge for any public or private water resource program is long term financial and technical resources. These programs need time and resources in order to meet their goals. This obstacle is ongoing and will need continued attention in the future.

There are other issues that have been addressed but will need continued attention. The WPAC's relationship and input to the WRCC cannot be diminished. Public and private partnerships and investments will continue to be important, especially as financial challenges are addressed. Research and technology has improved, especially with the Iowa Flood Center and the Iowa Nutrient Research Center (INRC). Continued research is needed to understand complex problems and create new solutions. Public involvement will always be a continued need as we address Iowans' water concerns.

Update on WPAC's 2012 Recommendations to the Iowa Legislature

2012 RECOMMENDATION A. Improving water quality and optimizing the costs of voluntarily achieving and maintaining water quality standards.

The WPAC recommends that the WRCC encourage entities, both public and private, involved in watershed planning and implementation programs/projects to conduct a strategic evaluation on how watershed programs/projects are implemented in order to make watersheds work more understandable, easily accessed, and effective.

2014 Update: Watershed Management Authority (WMA) and Water Quality Initiative (WQI) projects presented at the September WPAC meeting to discuss how to make the projects more effective. Long term funding and technical assistance are needed for both types of projects. See WMA details under Recommendation G.

The WPAC recommends that the WRCC and WPAC members jointly develop a structure for cooperative interaction that facilitates communication of WPAC recommendations to the WRCC and provides WRCC the ability to provide feedback to WPAC. The structure is to ensure an open transparent process to engage WPAC members in committees and sub- committees of the WRCC.

2014 Update: WPAC updates are on WRCC agendas. Sometimes both councils meet jointly. WPAC receives updates from WRCC subcommittees, and WPAC members have participated in past subcommittee meetings. Formal requests for WPAC representation and input in WRCC subcommittee meetings would help clarify WPAC's role.

The WPAC recommends that the WRCC agencies, in cooperation with WPAC members utilize a process like Value Stream Mapping (VSM) where programs can be viewed and gaps and overlapping programs can be identified. Potential outcomes for conducting VSM may include: Clarifying the roles of various agencies; identifying entry points for potential watershed grant

applicants; and determining –road maps for watershed improvement programs.¹

2014 Update: No Action.

The WPAC recommends that prioritization of watersheds and sub-watersheds across the state be used to help guide investment of limited time and resources.²

2014 Update: Prioritization of watersheds by the WRCC’s watershed prioritization committee has been completed. Priority watersheds are: Floyd River, North Raccoon River, East and West Nishnabotna Rivers, Boone River, South Skunk River, Skunk River, Middle Cedar River, and the Turkey River (Attachment A).

Thirteen Water Quality Initiative demonstration projects have been established in these priority watersheds. A Request for Applications for additional demonstration projects will establish more projects in early 2015.

Point sources are also using these priority watersheds to prioritize National Pollution Discharge Elimination System (NPDES) permits. All major point sources in the Turkey River priority watershed have added nutrient removal to their permits.

¹ Chris Van Gorp of the IDNR January 12, 2010 –WPAC Meeting minutes

² Bill Northey and Jeff Berckes November 17, 2011 –WPAC Meeting minutes

The WPAC recommends that the WRCC and the State of Iowa execute an Adaptive Watershed Management Implementation framework which would follow a logical progression of assessing, planning, targeting, implementing and measuring watershed project progress and success. The primary goal of the framework is to optimize both public and private investments along with water quality improvements that are measureable and reportable.

2014 Update: It is perceived that the integration of adaptive management is fundamental to all Water Quality Initiative projects and cost-share programs.

2012 RECOMMENDATION B. Creating economic incentives for voluntary nonpoint- source load reductions, point source discharge reductions beyond those required by the federal Water Pollution Control Act, implementation of pollution prevention programs, wetland restoration and creation, and the development of emerging pollution control technologies.

The WPAC recommends greater emphasis be placed on leveraging public and private investment designed to create economic incentives for implementing practices and technology in priority watersheds. State agencies should identify new opportunities like reverse auctions, nutrient trading, and alternative technologies. Encourage and reward producers, local communities and business and industry to adopt holistic watershed approaches to solve water quality problems through assessment, planning and implementation. State and federal agencies along with private

investors need to allocate dollars for technical assistance. All agencies and organizations need to leverage additional funding and in-kind support or they are likely missing opportunities that may make programs and funding unsustainable over time.³

2014 Update: WPAC continues to recommend strengthening public-private partnerships in all project and program areas. The Clean Water State Revolving Fund's Sponsored Projects is an example of new economic incentives for load reductions. This program uses an overall interest rate reduction for wastewater improvements to pay for projects that cover best management practices for nonpoint source pollution control.

The Iowa League of Cities is exploring the feasibility of nutrient trading in Iowa. Forty different trading programs have been reviewed. The study revealed that there are ten active trading programs in the United States, with three actively trading point-source to non-point source. The scale of the trading programs showed that two are multi-state, six are statewide and eighteen are watershed based. Trading credits ranged from \$1.48 to \$10.00 per pound. Conclusions from the study showed that no state has the same trading system and the use of technology based standards have not been widely used for trading. Perceived barriers for active PS to NPS trading are the complexities of the trading programs, stringent baselines for NPS to enter into active trading and lack of communications between stakeholder groups. The League will continue to investigate the feasibility and potential trading options for Iowa.

The Iowa Agriculture Water Alliance formed in 2014 and seeks to bring resources to Iowa to accelerate implementation of conservation practices that support Iowa's nutrient reduction strategy. These resources include funding from: state and federal government agencies, private foundations, agricultural corporations, and entities within the food and beverage supply chain.

2012 RECOMMENDATION C. Establish a process for WPAC to review progress of TMDL, NPS Plan, unsewered communities, urban stormwater runoff, watershed plans, etc., as related to prioritized watersheds.

³ Ehm and Kling Presentation November 17, 2010 – WPAC Meeting minutes

The WPAC intends to focus on water quality progress in priority watersheds by requesting reports and presentations by agencies and organizations at WPAC meetings. WPAC members will be engaged in discussion of the successes and challenges of these projects.

2014 Update: At each WPAC meeting IDALS, IDNR and ISU report on the status of the INRS. IDALS and DNR have been asked to report on the status of all statewide water quality programs and projects funded with public funds.

Since September 1, 2013 IDNR has issued 35 NPDES permits to municipal and industrial facilities. Of those, 1 facility was currently conducting total nitrogen removal, 2 facilities were permitted to include construction of nutrient removal and 1 facility connected in 2014 and another will be connected by 1-1-2019 to the Wastewater Reclamation Authority (WRA) in Des Moines. An additional 12 facilities have permits currently on public notice.

IDALS provided a list of 320 watershed projects from 2007 through 2014. The projects were funded by a variety of state and federal program funds. Conservation practices have been implemented on approximately 110,000 acres.

Pre-applications for NPS targeted demonstration watershed projects were due November 17, 2014 and a second request for urban projects were due December 19, 2014 are IDALS most recent requests for project proposals.

Attachment B provides a map of state-funded watershed initiatives.

Attachment C provides a list of watershed projects from 2007 to the present

2012 RECOMMENDATION D. New Technologies and Best Management Practices

The WPAC will continue to update its members, the WRCC, and the public on the current research relative to Iowa's point and nonpoint source control technologies, the application of these technologies in the field, including the economic impact on producers and consumers. These efforts are intended to help Iowa communities and citizens build confidence in the positive impact on water quality of these technologies and aid in their increased adoption and use.

2014 Update: The INRC will be asked to update WPAC on research that includes evaluating the performance of current and emerging nutrient management practices, including monitoring data that verifies outcomes.

The INRC was established by the Iowa Board of Regents in response to legislation passed by the Iowa Legislature in the spring of 2013. Ten research projects were conducted in 2013 and another ten in 2014, all funded by the INRS. A list and links to ongoing research projects, emerging nutrient management practices and the status of each project can be found at <http://www.nutrientstrategy.iastate.edu/center>.

The measures sub-committee, a sub-committee of the WRCC, will be analyzing available information on the implementation of conservation practices. Sources may include Farm Services Agency (crops and acres by county), WIRB funded practices, and USDA-NRCS conservation practice enrollment by HUC 8 and HUC 12 watersheds. The sub-committee is looking to conduct a survey to measure farmer's knowledge, attitude and behavior in regard to the INRS. These types of analysis will help identify barriers to and facilitators of behavioral changes needed to reduce nutrient loss over time.

The point-source community will be asked to update WPAC on monitoring data collected for the assessment phase by the targeted NPDES permit holders, and after technology is implemented, research that includes evaluating the performance of current and emerging nutrient management technologies. Assessments are a two year process. The first assessments should be completed in 2015.

2012 RECOMMENDATION E. Provide greater flexibility for broader public involvement through community-based and performance-driven watershed management planning.

WPAC will request a report from the WRCC on the strategies state agencies have employed to provide greater flexibility, broader public awareness and involvement in community and performance driven watershed management assessment, planning, and funding.

WPAC meetings will include stakeholder engagement opportunities.

WPAC will reinforce collaboration by requesting the WRCC develop one central web-based location where citizens can go to get watershed information and that will facilitate discussions between watershed organizations.

These actions are designed to elicit broad perspectives on watershed issues, community and landowner/operator engagement, public education, and open communication with the WRCC and WPAC.

2014 Update: At the end of 2014, WPAC will request a report from the WRCC on the strategies that state agencies have employed to provide greater flexibility, broader public awareness and involvement in community and performance-driven watershed management assessment, planning, and funding.

WPAC meetings are open to the public, and they are encouraged to submit and/or present comments during the public comment portion of the meetings.

Presenters are invited to participate in WPAC's discussions and offer input.

Iowa State University, University of Iowa, IDALS, and DNR host websites that may meet some of the watershed organization's needs; however progress remains to be made on establishing a single source dedicated watershed website.

2012 RECOMMENDATION F. Assigning responsibility for monitoring flood risk, flood mitigation, and coordination with federal agencies.

The WPAC recommends the Iowa Flood Center (IFC) be assigned responsibility for monitoring flood risk, flood mitigation and coordination with federal agencies. The WPAC further reiterates support that the Iowa Flood Center should be included as a member of the WRCC and continue to provide updates to the WPAC.

2014 Update: Active IFC representation on the WRCC has been established and has made a positive contribution to advancing WRCC goals, including INRS targeted watershed prioritization.

The IFC is involved in research and watershed efforts with numerous local, state, and federal entities. Some of the key programs are highlighted below:

- Continued development of the Iowa Flood Information System (ifis.iowafloodcenter.org) and a statewide flood forecasting system.

- Installed 50 additional low-cost stream-stage sensors, in partnership with the Iowa DNR. The current network of stream-stage sensors now includes just over 200 units across the state.
- Continued progress on the completion of draft flood hazard products for the 85 Iowa counties that were declared Presidential Disaster Areas following the 2008 floods in partnership with the Iowa DNR. The project is two-thirds complete. The flood hazard products will delineate floodplain boundaries for a number of annual exceedance flow conditions, including the 1% annual chance (100-year) flood and 0.2% annual chance (500-year) flood.
- Ongoing partnership with the Turkey River Watershed Management Authority, Soap Creek Watershed Board, Upper Cedar River Watershed Management Improvement Authority, multiple Soil and Water Conservation Districts, NRCS district staff, and private landowners to implement and quantify the impact of small-scale mitigation projects on downstream flood damages. In 2014, the IFC installed intensive monitoring networks (stream level, precipitation, soil moisture, soil temperature, groundwater wells) in three priority HUC12 watersheds (Otter Creek, South Chequest, and Beaver Creek) and developed physically-based computational models to support this project. Mitigation projects will go into the priority watersheds in 2015.
- Expanded the library of community inundation maps to include maps for Waverly. Community inundation maps are now available for thirteen Iowa communities. These maps allow community members to view the possible extent of flood inundation based on forecasted river levels.
- Engaged approximately 25 graduate and undergraduate students at the University of Iowa in activities of the Iowa Flood Center by providing hands-on training and research experience spanning a variety of academic disciplines.

In addition to activities of the Flood Center, IIHR expanded their network of real-time water quality stations to 22 in 2014.

2012 RECOMMENDATION G. Establish Watershed Management Authorities.

In the 2012 report, WPAC highlighted the opportunity offered by the WMA application process and supported that process. In addition, WPAC made the following recommendation:

The WPAC believes that cities and counties may be in need of additional training relative to watershed issues, including learning what incentives might be available or appropriate to encourage greater watershed planning.

2014 Update: Watershed Management Authority and Water Quality Initiative representatives presented at the September 26, 2014 WPAC meeting. Long-term funding for both financial and technical assistance is a major challenge. After much time and resources are devoted to watershed planning, short term grants expire and these projects are left scrambling for funding to implement these plans. The name “Authority” also is a challenge that creates confusion for local citizens about what the Watershed Management Authorities are allowed to do.

All six areas receiving grant support for WMA development were able to form partnerships of counties, municipalities and Soil and Water Conservation Districts and to successfully file 28E agreements for WMAs by the second quarter of 2013. For more information, visit

<http://www.iowadnr.gov/Environment/WaterQuality/WatershedManagementAuthorities.aspx>.

The WPAC recommends the state support the continued development and funding of WMAs as this effort helps recruit and involve local leadership at various levels and can serve to raise awareness of the watershed approach to solving water quality issues.

2014 Commentary on Iowa Nutrient Reduction Strategy (INRS)

A. In 2014, WPAC members received updates and participated in discussions focused on the progress and measures of the INRS. WPAC members generally tended to agree on the following points:

- 1) WPAC should have active involvement in the INRS going forward, but recommends locating additional resources and developing an overall strategic direction for WPAC before considering any possible expansion of their role beyond one of monitoring, reviewing and advising.
- 2) WPAC sees value in the watershed priority approach and its intent to target programming and funding to ensure the public sees measurable return on their investments that address both point and non-point sources in a process that brings the two together for a holistic vision of the watershed. This has also included first time users of best management practices that target nutrient reduction according to the science assessment.
- 4) Iowa continues to need an open and transparent approach to communications to increase public and other stakeholder awareness, of the general understanding and involvement in advancing nutrient reductions.
- 5) WPAC continues to support the value of the science assessment and recognizes the need for future research pertaining to environmental, social, and economic assessments of Iowa's watersheds.
- 6) WPAC continues to support research and communication strategies to the benefits and challenges of statewide nutrient reductions.
- 7) WPAC continues to support establishment of a centralized database for ongoing monitoring and inventory of statewide environmental conditions, point source technology adoption and conservation practice adoption.
- 8) WPAC continues to support the ambient monitoring of the DNR for assessing broad-scale water quality improvements and standardize procedures for calculating nutrient budgets. WPAC also supports public-private partnerships to expand the network of monitoring at practice, field, and watershed project scale.

B. In addition to the consensus suggestions captured above, WPAC identified a series of needs and challenges for moving forward with implementation of the INRS, including:

- 1) Identify and obtain adequate, long-term funding strategies.
- 2) Continue to develop accountability strategies building upon annual reporting and work done by the WRCC Measures of Success subcommittee.
- 3) Continue to commit to transparency of process and actions.
- 4) Continue to highlight local water quality benefits in addition to the benefits to the Mississippi River and Gulf of Mexico.
- 5) Continue to expand information, data, and research on the effectiveness and sustainability

of management practices and technology on a watershed basis. The INRC is currently conducting this effort.

- 6) Increase clarity of the implementation approach to the INRS. At the same time, the need is recognized to estimate or model nutrient loads, such as is done by the EPA Clean Water Act 319 program and some IDALS watershed projects, due to the “lag factor” that has been documented in the Iowa Big Spring Basin, the

Chesapeake Bay, and elsewhere¹. Edge of field and practice monitoring can play a more important role in individual small watershed projects, as a tool for evaluating the strategy’s early success, as noted in the Determine Watershed Goals section of the *Iowa Nutrient Reduction Strategy 2013-2014 Annual Progress Report*, page 3.

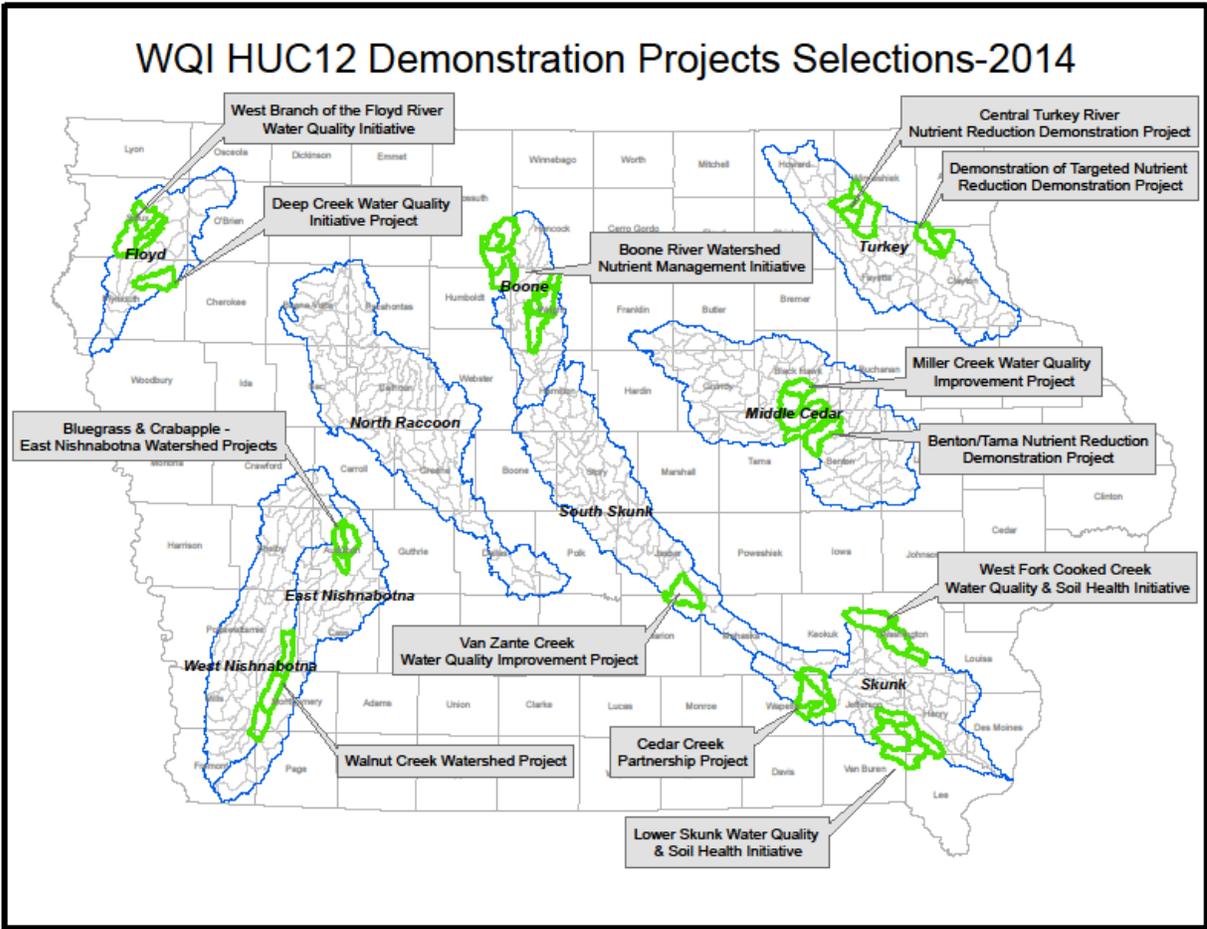
¹ *Results from the Big Spring basin water quality monitoring and demonstration projects, Iowa, USA, Hydrogeology Journal (2001) 9:487–497.* New USGS Study on Chesapeake Bay: Groundwater Delaying the Effects of Some Water Quality Actions, News Release, 11/12/2013.

Attachment A
Watershed Planning Advisory Council Membership

Organization	Member Name or Delegate
Senate Seat 1 (non-voting member)	Senator Joe Bolkcom
Senate Seat 2 (non-voting member)	Senator Dan Zumbach
House of Representatives Seat 1 (non-voting member)	Rep. Charles Isenhart
House of Representatives Seat 2 (non-voting member)	Rep. Lee Hein
Agribusiness Association of Iowa	Joel Brinkmeyer
Department of Agriculture and Land Stewardship	Jim Gillespie
Department of Natural Resources	Bill Ehm
Growing Green Communities	Rio Menning
Iowa Association of Business and Industry	Scott Ickes
Iowa Association of Municipal Utilities	Bill Stowe
Iowa Conservation Alliance Seat 1	Jeremy Rosonke
Iowa Conservation Alliance Seat 2	Mike Delaney
Iowa Corn Growers Association	Gary Edwards, Co-chair
Iowa Drainage District Association	Vicki Stoller
Iowa Environmental Council	Linda Kinman, Co-chair
Iowa Farm Bureau Federation	Rick Robinson
Iowa Floodplain and Stormwater Management	Luis Leon
Iowa League of Cities	Dustin Miller
Iowa Pork Producers Association	Cody McKinley
Iowa Rivers Revival	Rosalyn Lehman
Iowa Rural Water Association	Emily Piper
Iowa Soybean Association	Roger Wolf
Iowa Water Environmental Association	Jay Brady
Soil and Water Conservation Districts of Iowa	Clare Lindahl

Attachment B

Priority Watershed Map



Attachment C

320 watershed projects have been undertaken by IDALS since 2007. The list below includes, program source of funding, project title, district where the project is located and the project start and end dates. (For an enlarged copy of the report contact IDALS-DSC.)

Program	Project Title	District	Project Start	Project End	District	Projects	District	Projects	
WPF, WSPF	North Thompson River Water Quality Project	Adair	2005	Active	Adair	4	Muscatine	1	
WIRB	West Fork Middle Nodaway	Adair	2013	Active	Adair	1	O'Brien	0	
Dev Grant	West Branch Middle Nodaway River	Adair	2009	2011	Allamakee	Adams	7	Osceola	1
Dev Grant	North Thompson River Water Quality Project	Adair	2008	2010	Aspawaukee	10	Pike	2	
WIRB	Lake Icaria Watershed	Adams	2011	2013	Audubon	1	Palo Alto	6	
WIRB	Waterloo Creek	Allamakee	2012	Active	Benton	1	Plymouth	2	
WIRB	Yellow River Headwaters	Allamakee	2010	2012	Black Hawk	6	Pocahontas	7	
WIRB	Yellow River Headwaters	Allamakee	2008	2012	Boone	3	Polk	11	
WIRB	Indian Springs Pond	Allamakee	2008	2013	Bremar	0	East Pott.	2	
WIRB	Ludlow Creek	Allamakee	2008	2012	Buchanan	4	West Pott.	4	
Dev Grant	Waterloo Creek Watershed Assessment	Allamakee	2010	2011	Burns Vista	5	Poweshiek	4	
WIRB	Yellow River Watershed Project	Allamakee	2007	2010	Butler	0	Franklin	4	
WPF, WSPF	Rathbun Lake Special Project	Appanoose	2004	Active	Calhoun	0	Tazewell	4	
WIRB	Fox River	Appanoose	2009	Active	Carroll	5	Scott	5	
WIRB	Rathbun Lake Watershed	Appanoose	2009	Active	Cass	1	Shelby	0	
WIRB	Rathbun Lake Watershed	Appanoose	2011	Active	Cedar	1	Stout	1	
WIRB	Rathbun Lake Watershed	Appanoose	2012	Active	Cerro Gordo	2	Story	5	
WIRB	Rathbun Lake Watershed	Appanoose	2013	Active	Cherokee	2	Tama	3	
WIRB	Rathbun Lake Watershed	Appanoose	2014	Active	Chickasaw	0	Taylor	2	
Dev Grant	Cooper Creek Water Quality Project	Appanoose	2013	2014	Clarke	2	Union	10	
WIRB	Rathbun Lake Watershed	Appanoose	2008	2012	Clay	4	Van Buren	2	
WIRB	Rathbun Lake Watershed	Appanoose	2008	2012	Clinton	4	Wapello	8	
WQI Demo	Bluegrass & Crabapple- E Nish WS Project	Audubon	2014	Active	Clinton	1	Warren	2	
WQI Demo	Benton/Tama NRS Demonstration Project	Benton	2014	Active	Crawford	0	Washington	2	
WSPF	Dry Run Creek Water Protection Project	Black Hawk	2007	Active	Dallas	4	Wayne	0	
WIRB	Dry Run Creek	Black Hawk	2012	Active	Dallas	5	Webster	0	
WIRB	Dry Run Creek	Black Hawk	2012	Active	DeWitt	2	Winnebago	0	
WQI Demo	Miller Creek WQI Project	Black Hawk	2014	Active	Delaware	8	Winnebago	8	
WIRB	Dry Run Creek	Black Hawk	2010	2014	Des Moines	2	Woodbury	2	
Dev Grant	Castle Hill/ Pleasant Valley Subwatershed Grant	Black Hawk	2011	2013	Dickinson	9	Worth	1	
WPF, WSPF	Onion Creek Watershed Project	Boone	2011	2014	Dubuque	4	Wright	3	
CREP	CREP Project 12-04	Boone	2012	2012	Emmet	2			
WSPF	Roan's Creek Watershed Project	Boone	2002	2009	Fayette	4	Total	320	
WIRB	Middle Buffalo Creek	Buchanan	2012	Active	Floyd	10			
WIRB	Upper Buffalo Creek Watershed	Buchanan	2009	2014	Franklin	0			
WPF, WSPF	South Fork Maquoketa River Water Quality Project	Buchanan	2005	2011	Fremont	0			
Dev Grant	Buffalo Creek Water Quality Project	Buchanan	2008	2009	Greene	1			
WIRB	North Raccoon	Buena Vista	2012	Active	Grundy	1			
WIRB	Storm Lake Watershed	Buena Vista	2008	2013	Guthrie	1			
CREP	CREP Project 10-02	Buena Vista	2010	2010	Hamilton	1			
CREP	CREP Project 09-08	Buena Vista	2009	2009	Hancock	5			
Dev Grant	Brook's Creek Watershed Project	Buena Vista	2007	2008	Hardin	2			
Dev Grant	Elk Run Creek Watershed Project	Carroll	2011	Active	Harrison	1			
WIRB	Swan Lake Watershed	Carroll	2012	2014	Henry	2			
WIRB	South Raccoon/Maple River Junction	Carroll	2007	2012	Howard	6			
WIRB	Brushy Creek	Carroll	2007	2012	Humboldt	1			
CREP	CREP Project 10-01	Carroll	2010	2010	Iowa	0			
Dev Grant	Butterfield Creek and Unimaded Creek Watershed	Cass	2009	2009	Jackson	4			
Dev Grant	Hoover Creek Water Quality Project	Cedar	2008	2010	Jackson	4			
CREP	CREP Project 11-04	Cerro Gordo	2011	2011	Jasper	2			
CREP	CREP Project 07-04	Cerro Gordo	2007	2007	Jefferson	4			
WIRB	Gere Creek	Cherokee	2013	Active	Johnson	6			
Dev Grant	Mill Creek	Cherokee	2013	Active	Jones	3			
WPF, WSPF	Upper Whitebreast Creek Water Quality Project	Clarke	2008	2011	Keokuk	0			
Dev Grant	West Lake Watershed Improvement Project	Clarke	2011	2011	Kossuth	1			
CREP	CREP Project 12-01	Clay	2012	2012	Lee	2			
CREP	CREP Project 12-07	Clay	2012	2012	Linn	1			
CREP	CREP Project 09-03	Clay	2009	2009	Louisia	1			
Dev Grant	Willow Creek Watershed	Clay	2008	2009	Lucas	3			
WPF, WSPF	Silver Creek Watershed Project	Clayton	2007	Active	Lyon	0			
WQI Demo	Clayton County Targeted NRS Demonstration	Clayton	2014	Active	Madison	2			
WIRB	Silver Creek Watershed	Clayton	2009	2014	Mahaska	7			
WIRB	Bloody Run Creek Watershed	Clayton	2010	2012	Marion	5			
WIRB	Miners Creek	Clayton	2007	2011	Marshall	1			
WPF, WSPF	Bloody Run Watershed Project	Clayton	2007	2007	Mills	1			
Dev Grant	Brophy Creek Watershed Assessment Proj.	Clinton	2008	2009	Mitchell	5			
CREP	CREP Project 13-05	Dallas	2013	2013	Monroe	0			
CREP	CREP Project 11-05	Dallas	2011	2011	Monroe	6			
Dev Grant	Ouley Creek Watershed	Dallas	2010	2011	Montgomery	9			
CREP	CREP Project 09-11	Dallas	2009	2009					
WPF, WSPF	Fox River Water Quality Project	Davis	1999	Active					
WIRB	Fox River Watershed	Davis	2012	Active					
WIRB	South Chequett Creek	Davis	2012	Active					
Dev Grant	Chequett Watershed Project	Davis	2011	2011					
WPF, WSPF	Lake Wapello Nonpoint Source Watershed Project	Davis	2007	2013					
WIRB	Little River Lake	Decatur	2009	2014					
Dev Grant	Little River Lake Watershed Project	Decatur	2008	2010					
WIRB	Honey Lindsey Dry Run Creeks	Delaware	2012	Active					
WIRB	Honey Lindsey Allison Creeks	Delaware	2013	Active					
WPF, WSPF	Bear Creek Watershed Project (Delaware)	Delaware	2006	2013					
WIRB	Bear Creek Watershed	Delaware	2009	2013					
Dev Grant	Bear Creek and Steeles Branch Watersheds	Delaware	2012	2013					
WIRB	Sand Creek Watershed	Delaware	2007	2012					
Dev Grant	Honey Creek Watershed Development Project	Delaware	2009	2012					
Dev Grant	Dry Run Watershed Development Project	Delaware	2009	2011					
WPF	Lake Geode Watershed NPS Project	Des Moines	2009	Active					
Dev Grant	Lake Geode Watershed Assessment	Des Moines	2007	2008					
WPF	Urban Conservationist Project	Dickinson	2008	Active					
WSPF	Iowa Great Lakes Targeted Watershed Project	Dickinson	2010	Active					
WSPF	Silver Lake Watershed Protection Project	Dickinson	2010	Active					
WIRB	Center Lake	Dickinson	2012	Active					
WIRB	Iowa Great Lakes Targeted Watershed	Dickinson	2010	2014					
WIRB	East Okoboji Lake	Dickinson	2008	2012					
CREP	CREP Project 09-05	Dickinson	2009	2009					
Dev Grant	Silver Lake Watershed Assessment	Dickinson	2007	2008					
WPF	Iowa's Great Lakes Region Stormwater Project	Dickinson	2006	2007					
WIRB	Hewitt Creek Watershed	Dubuque	2009	Active					
WIRB	North Fork Maquoketa	Dubuque	2012	Active					
WPF, WSPF	Upper Catfish Creek Watershed Protection Project	Dubuque	2007	2012					
WIRB	North Fork Maquoketa River Headwaters	Dubuque	2007	2011					

Legislative Watershed Policy History (2006-2010)

The [Watershed Quality Planning Task Force](http://www.iowaagriculture.gov/WPAC/pdf/finallegislativereport2007.pdf) - <http://www.iowaagriculture.gov/WPAC/pdf/finallegislativereport2007.pdf> was created by the 2006 Iowa Legislature in Senate File 2363. This legislation called for creation of a committee to discuss a voluntary statewide water quality program. Specifically, the legislature asked the Watershed Quality Planning Task Force to develop a report containing recommendations on the following issues:

- Improving water quality
- Creating economic incentives for environmental compliance
- Facilitating implementation efforts
- Developing quantifiable protocols and procedures
- Providing greater flexibility through community-based, non-regulatory, performance-driven watershed management planning.

Watershed Quality Planning Task Force Recommendations

In their Watershed Planning Quality Task Force (WQPTF) final report published in November 2007 (see <http://www.iowaagriculture.gov/WPAC/pdf/finallegislativereport2007.pdf>) made the following recommendations:

Creation of a Water Resource Coordinating Council. The Water Resource Coordinating Council (WRCC) under the direction of the Governor is recommended with a common goal to develop an integrated approach to water resource management, and which recognizes the insufficiency of current approaches, programs, practices, funding and utilization of current funding programs. This approach seeks to overcome old polarities such as quantity versus quality, land versus water, the chemical versus the physical and biological, supply versus demand, political boundaries versus hydrological boundaries, and point versus non-point. This approach seeks to manage water comprehensively rather than compartmentally. The purpose of this recommendation is to coordinate programs, not to duplicate or supersede agency authorities and responsibilities. Funding Recommendation: None.

Conduct a Water Quality Research & Marketing Campaign. The task force recommends a marketing campaign be undertaken by public agencies and other organizations to rekindle the conservation ethic in all Iowans. Surveys indicate citizens' desire for improvement in water quality. Other surveys show that citizens don't understand the problems with local water quality. Funding Recommendation: \$1 million for year one development.

Larger (Regional) Watershed Assessment, Planning & Prioritization. The state should support creating, publishing and updating periodically a Regional Watershed Assessment (RWA) program at a larger watershed scale, such as the Hydrologic Unit Code (HUC – a federal term that delineates watersheds) 8 scale. There are approximately 56 HUC 8 size watershed units delineated in Iowa. A goal is to assess 11 HUC 8 size watersheds per year for five years to eventually cover the entire state. The Rapid Watershed Assessment tool used by Iowa NRCS, for example, is one assessment process that may be used. A regular review and update of these assessments should also be planned. Funding Recommendation: \$5 million annually.

Smaller (Community-Based) Watershed Assessment, Planning, Prioritization & Implementation. Once a regional watershed assessment is completed at the HUC 8 scale,

planned projects of a manageable scope can be implemented. Priority sub-watersheds at a HUC 12 or smaller scale can reasonably be recruited and provided more resources for planning. A sub-watershed plan should include objectives, a thorough local assessment of the physical, social, and financial resources of the watershed, an analysis of the alternatives, and an implementation plan that includes an evaluation process to measure results. Funding Recommendation: \$5 million annually.

Support for Smaller (Community-Based) Watershed Monitoring and Measurement. In addition to current support for water monitoring, the state should provide technical and financial support for locally-based watershed monitoring and measurement. This monitoring would be custom designed to provide information on essential water resource questions facing the local community. Local communities would first be able to use this information to support enhanced planning, local data collection, and thus helping them identify priority areas to target limited resources. Funding Recommendation: \$ 2.5 million annually.

Wastewater and Stormwater Treatment Infrastructure. We all live in a watershed. Impacts to water quality come from a variety of sources, including both rural and urban, nonpoint and point sources. Challenges for point sources and communities can have a significant impact on watershed conditions from stormwater and wastewater. Aging wastewater and combined sewer/stormwater infrastructure issues are having negative impacts on water quality. Also, compliance with current and future water quality standards may be cost-prohibitive for many communities. Additional funding mechanisms should be identified and funding should be prioritized for communities that present the greatest water quality and health risks within the watershed. This will include sewered and unsewered communities.

The task force also said there were eight additional considerations for which there were no final recommendations. It is recommended, however, that the WQPTF continue to work on these issues into the future, the task force said.

Watershed Resources Coordinating Council

In 2008, the Iowa Legislature received this report and passed House File 2400, which sought to continue this work, as recommended, through the creation of the [Water Resources Coordinating Council](http://www.iowaagriculture.gov/WRCC.asp) (WRCC) - <http://www.iowaagriculture.gov/WRCC.asp>. The purpose of the council is to preserve and protect Iowa's water resources, and to coordinate the management of those resources in a sustainable and fiscally responsible manner. In the pursuit of this purpose, the council shall use an integrated approach to water resource management, recognizing that insufficiencies exist in current approaches and practices, as well as in funding sources and the utilization of funds. The integrated approach used by the council shall attempt to overcome old categories, labels, and obstacles with the primary goal of managing the state's water resources comprehensively rather than compartmentally.

Floods of 2008 Recovery Efforts

The state and federal agencies outlined in HF 2400 began to meet and discuss common watershed issues and needs under the umbrella of the WRCC in the summer of 2008, under the

chairmanship of Governor Chet Culver's office and staff. The –floods of 2008| resulted in a refocusing of much of the WRCC's efforts, primarily to flood recovery issues.

As a result of the floods of 2008, the Iowa Legislature approved HF 756, which required the WRCC to submit policy and funding recommendations that promote –a watershed management approach to reduce the adverse impact of future flooding on this state's residents, businesses, communities, and soil and water quality.¶ The original WRCC floodplain recommendations were filed in November 2009.

Two bills passed in the 2010 legislative session address five of the recommendations. HF 2531 (Standing Appropriations Bill) requires the WRCC and others to extent feasible to: 1) work on establishing an Iowa chapter of State Floodplain Managers Association, 2) education and 3) marketing for flood risks and floodplain awareness (signed into law 4/29/10). HF 2459 (Watershed Bill) 4) authorizes that funding be sought for pilot watershed projects involving IDALS, DNR and the Iowa Flood Center, and 5) outlines potential watershed governance via Watershed Management Authorities (Signed 4/7/10) HF 2459 also formally establishes a Watershed Planning Advisory Council (WPAC), comprised primarily of stakeholders that encouraged establishment of the Water Resources Coordinating Council in 2008.

In addition, the 2010 General Assembly passed and the Governor signed into law Senate File 2389, which provided guidance for Smart Planning in Iowa and established the Iowa Smart Planning Task Force, building on the watershed planning principles of the WQPTF and the WRCC. This Task Force was charged with recommending policies and strategies for creating a stronger planning culture in Iowa, producing more resilient and sustainable communities. In particular, the Task Force was asked to consider how best to:

- Integrate the Iowa Smart Planning Principles into appropriate state policies and programs.
- Determine an effective and efficient coordination and information sharing system to support local and regional planning.
- Suggest appropriate technical and financial incentives to support local and regional planning.
- Develop a framework for regional planning.

The group addressed each of those directives by November 15, 2010. The Smart Planning Task Force Report can be found at this link: http://publications.iowa.gov/10062/1/2010-11-5_Smart_Planning_Task_Force_Report.pdf