

Iowa Nonpoint Source Management Program Plan

Objectives and Action Steps

2018 Plan Update

2018-2022 (5-Year) Time Period

Key Updates to 2018 Revised Plan:

- adds the Iowa Nutrient Reduction Strategy into the revised plan (All)
- adds Watershed Management Authorities into the revised plan (DNR-led, All)
- adds the Iowa Water Quality Initiative (IDALS-led) into the revised plan
- adds the TMDL Vision (DNR-led) into the revised plan
- adds the Iowa Watershed Academy (ISU-led) into the revised plan
- adds the Soil Health Campaign (NRCS-led) into the revised plan

Other Updates:

- adds timeframes, milestones, and measures for each action step
- drops completed action steps from the original plan
- drops some unnecessary action steps from the original plan
- adds some new action steps into the revised plan to reflect current (2018) conditions
- revises some action steps to reflect current (2018) conditions
- reorders some action steps to follow more logically in the revised plan
- revises action step numbers in the revised plan

Goal 1: Build Partnerships to Enhance a Collaborative Watershed Approach to Nonpoint Source Water Pollution

Objective 1.1 - Strengthen and Expand Agency Collaboration

Lead Agencies - DNR, IDALS, CDI, ISU, NRCS (All 5 core partner agencies)

Action Step 1 (Revised action step from original plan) (DNR as lead agency): Communicate progress of NPS implementation to the Water Resources Coordinating Council (WRCC) & State Soil and Water Quality Commission (SSWQC).

Timeframe: Annually.

Milestone: NPS Implementation progress communicated yearly to WRCC and (SSWQC).

Measure: Annual progress updates completed.

Action Step 2 (New action step) (All 5 core partner agencies): Communicate progress made annually to implement the Iowa Nutrient Reduction Strategy (NRS), found on the Iowa NRS webpage: <http://www.nutrientstrategy.iastate.edu/>

Timeframe: Annually.

Milestone: NPS implementation progress communicated annually as part of NRS annual report.

Measure: NPS yearly update provided to NRS implementation team.

Original Objective 1.2 - Organize Soil and Water Conservation Districts to cooperate within watershed boundaries

Lead Agencies - CDI (primary lead), IDALS

Objective 1.2 (Revised objective) (CDI as lead) - Encourage SWCDs to cooperate within watershed boundaries.

Action Step 1 (Revised action step) (CDI-led): Incorporate Action Steps 2-8 into SWCD 5-year plan.

Timeframe: At 5-year SWCD plan update.

Milestone: Action Steps incorporated into 5-year SWCD plan.

Measure: Action Steps incorporated.

Action Step 2 (Revised action step) (CDI-led): Conduct joint commissioner and stakeholder visioning session at 5-year intervals as part of SWCD 5-year plan development.

Timeframe: Every 5 years.

Milestone: Joint commissioner and stakeholder visioning sessions held at 5-year SWCD plan development or update.

Measure: Visioning session held at 5-year update.

Action Step 3 (Revised action step) (CDI-led): Maintain a watershed map on display in every SWCD office with state-funded projects.

Timeframe: Annually.

Milestone: Watershed map on display in every SWCD office annually.

Measure: # of SWCD offices with map on display annually.

Action Step 4 (Same action step) (CDI-led): Communicate available science and needed information to SWCDs.

Timeframe: Annually.

Milestone: Available science and information communicated annually to SWCDs.

Measure: # of science and needed information communications annually.

Action Step 5 (Same action step) (CDI-led): Host legislative/elected official tours, field days.

Timeframe: Annually.

Milestone: Legislative tours and field days hosted annually.

Measure: # of tours and field days hosted annually.

Action Step 6 (Same action step) (CDI-led): Invite local media to watershed events.

Timeframe: Annually.

Milestone: Local media invitations annually.

Measure: # of media invitations.

Action Step 7 (Same action step) (CDI): Plan and provide for volunteer recognition activities and networking events.

Timeframe: Annually.

Milestone: Volunteer recognition activities and networking events annually.

Measure: # of activities and events.

Action Step 8 (Revised action step) (CDI): SWCDs collaborating with WMAs will help maintain local watershed websites.

Timeframe: Annually.

Milestone: Watershed websites developed and maintained annually.

Measure: # of watershed websites maintained.

Objective 1.3 - Develop local comprehensive visions and action plans for nonpoint source water quality within the HUC-12 watershed.

Lead Agencies: DNR (primary lead), CDI, IDALS

Action Step 1 (Revised action step) (DNR-led): State and federal agencies should provide watershed education, guidance, technical support to local stakeholders for watershed plan development and updates.

Timeframe: Ongoing.

Milestone: new and updated HUC-12 watershed assessments and action plans completed annually.

Measure: # of new and updated watershed assessments and plans completed annually

Action Step 2 (New action step) (DNR-led): Prioritize TMDL development in Iowa to address impaired waters with a high potential for social impact (as detailed in the State of Iowa "TMDL Vision", March 2017).

Timeframe: Annually.

Milestone: TMDLs under development or completed annually based on potential for high social impact.

Measure: # of TMDLs under development or completed annually based on potential for high social impact.

Objective 1.4 - Implement Smart Planning principles, as provided by Code of Iowa at watershed level.

Lead Agencies: DNR (primary lead), IDALS, ISU

Action Step 1 (Revised action step) (DNR-led): Provide technical assistance and financial incentives for the development and implementation activities of **Watershed Management Authorities (WMAs)** and other multi-jurisdictional efforts incorporating Smart Planning Principles.

Timeframe: Annually.

Milestone: WMAs supported with technical and/or financial assistance annually

Measure: # of WMAs supported with technical and/or financial assistance annually.

Action Step 2 (New action step) (DNR-led): Promote the use of Smart Planning Principles through Iowa Watershed Approach (HUD Grant-funded) activities and the SRF Sponsored Projects Program.

Timeframe: Annually.

Milestone: Report on WMAs and communities assisted annually.

Measure: # of WMAs and communities assisted annually.

Action Step 3 (Revised action step) (All): Encourage rural/urban collaboration, such as through Watershed Management Authorities (WMAs), to address agricultural and natural resource preservation, with an emphasis on NPS pollution reduction.

Timeframe: Ongoing.

Milestone: Report on rural/urban collaborations, including WMA development and WMA implementation.

Measure: # of rural/urban collaborations reported on annually.

Original Objective 1.5 - Increase coordination between public and private entities to better leverage existing funding (moved as New Objective 4.2, Action Step 2, which pertains to funding).

Goal 2: Improve Technical Assistance, Outreach, and Education to Facilitate NPS Assessment, Planning and Implementation

Objective 2.1 - Build local and mutual accountability through community-based watershed and other groups to set expectations for conservation behavior.

Lead Agencies: ISU, CDI

Action Step 1 (Revised action step) (CDI-led): Assist districts to collaborate with DNR, IDALS, and/or NRCS in setting watershed goals at the district level for soil conservation and water quality improvement including measures to track goals, timelines, and priorities.

Timeframe: Annually.

Milestone: Watershed goals set at the district level annually.

Measure: # watershed goals set.

Action Step 2 (Revised action step) (CDI-led): Plan and incorporate community-based watershed leadership training into soil and water commissioner professional development.

Timeframe: Annually.

Milestone: Watershed leadership training sessions held annually.

Measure: # watershed leadership trainings annually.

Action Step 3 (Same action step) (CDI-led): Connect districts with community-based watershed leaders through district meeting involvement.

Timeframe: Annually.

Milestone: Districts connected with watershed leaders through district meetings annually.

Measure: # district/watershed leader connections annually.

Action Step 4 (New action step) (ISU-led): Continue the Iowa Watershed Academy, which was created in 2016, to support skill building and idea sharing among watershed coordinators.

Timeframe: Annually.

Milestone: Academy sessions scheduled and held annually.

Measures: # of sessions held annually.

Objective 2.2 - Implement a “conservation central” system to consistently deliver local collaborative public and private technical and financial help across Iowa.

Lead Agencies: NRCS, IDALS

Objective 2.3 - Develop a consistent, understandable message about conservation set for delivery by multiple groups.

Lead Agencies: IDALS, DNR, ISU

Action Step 1 (Revised action step) (DNR-led): Implement actions that support a new statewide water quality education campaign, that are based on soil and water conservation BMPs, and that include urban conservation BMPs. The actions would be based on needs identified through the 2015 Statewide Water Quality Survey.

Timeframe: Annually.

Milestone: Actions implemented that support a statewide WQ education campaign.

Measure: # of actions implemented annually.

Action Step 2 (Revised action step): Coordinate conservation messaging with the statewide water quality educational campaign and the Iowa Nutrient Reduction Strategy **(DNR/ISU/IDALS)**.

Timeframe: Annually.

Milestone: Coordinated mass media messages developed and delivered.

Measure: # of coordinated messages developed and delivered annually.

Action Step 3 (Revised action step) (ISU-led): Continue yearly updates of key messaging on Iowa NRS webpage.

Timeframe: Annually.

Milestone: Key messages delivered and updated on Iowa NRC webpage annually.

Measure: # of webpage messages delivered annually.

Action Step 4 (Revised action step) (ISU-led): Iowa State University, through the Iowa Conservation Learning Group and Extension and Outreach, provides educational and outreach materials based on research and data on conservation BMPs to all groups, especially SWCD Commissioners.

Timeframe: Annually.

Milestone: Educational and outreach materials provided annually.

Measure: Types of materials provided; # of groups supplied.

Action Step 5 (Revised action step) (IDALS-led): Continue promoting green infrastructure (formerly called Low Impact Development) funding and implementation by:

- a. Updating brochures, websites, and other outreach about funding programs to be distributed to targeted audiences.
- b. Attendance at green infrastructure trade shows by agency staff and practitioners and by promoting green infrastructure education at conferences.
- c. Communicate green infrastructure research needs to the appropriate research community.

Timeframe: Annually.

Milestone: Educational and outreach materials provided annually.

Measure: Types of materials provided; # of groups supplied.

Objective 2.4 (This objective has been dropped; # 2.4 kept as a placeholder) - Develop a visioning process for HUC-8 watersheds in Iowa.

Lead Agency: DNR

Note: We have learned that visioning is more appropriate at the HUC-12 scale than the HUC-8 scale, so we proposed dropping this objective from the original plan.

Objective 2.5 - Develop and Implement a statewide campaign to inform people about water quality issues, motivate involvement, and change behavior.

Lead Agency: DNR

Note: The survey has been completed, and the statewide campaign has begun to be implemented on a local and regional level.

Action Step 1 (Revised action step) (DNR-led): To develop and implement a statewide campaign based on the results of the completed statewide water quality survey.

Timeframe: Develop in 2018; Begin implementing in 2019.

Milestone: Campaign Developed and Being Implemented.

Measures: Number of Organizations, Iowans, and Iowa Visitors exposed annually to campaign.

Action Step 2 (Revised action step) (DNR): Complete a follow-up survey replicating the initial survey to measure success of the campaign.

Timeframe: Complete in 2022.

Milestone: Follow-up Survey Completed.

Measure: Survey completed and reported on.

Action Step 3 (New action step) (NRCS-led): Provide support for the NRCS Soil Health campaign and related national work.

Timeframe: Annually.

Milestone: Soil Health campaign deployed annually.

Measure: # of farmers and landowners reached annually.

Objective 2.6 - Develop and implement conservation plans to adequately preserve soil productivity and to protect water quality for targeted priority areas.

Lead Agencies: NRCS, IDALS

Action Step 1 (New action step) (NRCS-led): Conduct NRCS Conservation Planning training sessions for partner agency employees or others as needed.

Timeframe: As needed.

Milestone: Training sessions held annually.

Measure: # of training sessions held.

Action Step 2 (New action step) (NRCS-led): Improve integration of partner (both within USDA service centers and outside service centers) assistance into the conservation planning process.

Timeframe: Annually.

Milestone: Partner assistance into conservation planning included annually.

Measure: # of partner assistance initiatives annually.

Action Step 3 (New action step) (NRCS-led): Help develop and implement the use of innovative conservation planning tools, such as the Resource Stewardship Evaluation Tool (RSET) and the Field To Market (FTM) Field Print Calculator.

Timeframe: Annually.

Milestone: Innovative tools developed and implemented annually.

Measure: # of tools developed and utilized.

Goal 3: Science-Based Performance Measures

Objective 3.1 - Encourage greater public participation in the monitoring and evaluation of water quality best management practices.

Lead Agency: DNR

Action Step 1 (Revised action step) (DNR-led) Provide annual monitoring reports or graphical output of water quality data to 319-supported watershed projects.

Timeframe: Annually.

Milestone: Annual monitoring reports completed for each 319 watershed project.

Measure: # of Annual monitoring reports completed.

Action Step 2 (Revised action step) (DNR-led): Provide a volunteer water monitoring “train-the-trainer program” that trains local watershed groups how to organize a locally-led volunteer monitoring program, use monitoring equipment, and interpret data.

Timeframe: Annually, beginning in 2017.

Milestone: “Train-the-trainer program” developed and implemented annually.

Measure: # of programs being implemented.

Objective 3.2 - Develop local natural resource goals with targeted solutions to meet watershed needs.

Lead Agencies: DNR, IDALS

Action Step 1 (Revised action step) (DNR/IDALS): Generate watershed data, as needed, at the HUC 12 scale through new and updated assessments completed using existing assessment *tools*.

Timeframe: Annually.

Milestone: HUC-12 assessments updated and completed annually.

Measure: # of HUC-12 assessments updated and completed annually.

DNR - DNR completed 69 HUC-12 assessments in 2018.

Action Step 2 (Same action step) (DNR/IDALS): Provide local groups with necessary assessment tools to assist in the information gathering process.

Timeframe: Annually.

Milestone: Assessment assistance provided to local groups annually.

Measure: # of local groups assisted annually.

Action Step 3 (Revised action step) (DNR/IDALS): Agency technical staff, Iowa Flood Center, WMA staff, and other agency staff will continue to work with interested local groups to assess local resource concerns and to identify priority watersheds.

Timeframe: Annually.

Milestone: Assistance provided to local groups with resource assessments and with identifying priority watersheds.

Measure: # of local groups assisted annually.

Action Step 4 (Revised action step) (DNR/IDALS): Agency technical staff, Iowa Flood Center, WMA staff, and other agency staff will continue to work with interested local groups to conduct watershed planning and complete watershed plans.

Timeframe: Annually.

Milestone: New and updated watershed planning efforts conducted annually.

Measure: # of new watershed plans completed and updated annually.

Action Step 5 (Revised action step) (DNR/IDALS): Utilize local leaders to help recruit participants in local watershed groups, including WMAs.

Timeframe: Annually.

Milestone: Local leaders recruiting participants in local watershed groups.

Measure: # of local leaders involved in recruiting participants annually; # of watershed groups formed annually

Objective 3.3 - Utilize long-term research projects, including monitoring, funding, and alternative management practices to confirm post-project results of demonstration.

Lead Agency: ISU

Action Step 1 (Same action step) (ISU-led): Inventory long-term studies in Iowa.

Timeframe: Annually.

Milestone: Studies inventoried annually.

Measure: # of studies inventoried.

Action Step 2 (Same action step) (ISU-led): Contact project leaders and identify needs (Funding, support, etc.).

Timeframe: Annually.

Milestone: Project needs identified annually.

Measure: # of project needs identified.

Action Step 3 (Slight revision) (ISU-led):

- a. Encourage researchers to attend farmer meetings where water quality is discussed so they develop relationships with progressive farmers and managers; showcase watershed projects with engaged farmer leadership to better inform farmers, extension, and researchers of innovative strategies for addressing water quality; publicize Iowa Learning Farms activities, publications, and website.
- b. Develop process for gathering input from farmers about innovative soil conservation and water quality practices and sharing the results with researchers; educate farmers, CCAs, industry and agency personnel on new research on innovative strategies and practices **(All)**.
- c. Establish crosslinks between NRCS, IDALS, DNR, ISU, and CDI websites that describe innovative water quality strategies and practices **(All)**.

Timeframe: Annually.

Milestone: Farmer input sought and links to researchers made annually.

Measure: # of farmer/researcher links made annually.

Action Step 4 (Same action step, updated number) (ISU-led): Seek funding and support, as needed.

Timeframe: Annually.

Milestone: Funds obtained for long-term research projects.

Measure: Amount of funding obtained.

DNR - In 2018 DNR continued providing 319 funds for the following long-term water monitoring projects: NWQI Monitoring in the Black Hawk watershed, beach sand monitoring in the Big Creek Lake watershed, and paired watershed monitoring in the Easter Lake watershed.

ISU - State and federal research funding for ISU water quality and natural resource plan of work reporting areas to USDA-NIFA in 2017 totaled 8.6 million.

Action Step 5 (Same action step, new number) (ISU-led): Request periodic reports.

Timeframe: Annually.

Milestone: Reports requested annually.

Measure: # of reports requested.

Action Step 6 (Same action step, new number) (ISU-led): Publish results.

Timeframe: Annually.

Milestone: Results published annually.

Measure: # of results published annually.

Objective 3.4 - Place greater focus on up-scaling small-plot research to watershed scale.

Lead Agency: ISU

Action Step 1 (Same action step) (ISU-led): Use plot research to calibrate and/or parameterize watershed level models that address management impacts on water quality.

Timeframe: Annually (Revised timeframe).

Milestone: Watershed models calibrated and/or parameterized annually.

Measure: # of models calibrated and/or parameterized annually.

Action Step 2 (Same action step) (ISU-led): Engage producers to increase adoption of practices showing promise for improving water quality.

Timeframe: Annually.

Milestone: Producers engaged annually.

Measure: # of producers engaged annually.

Objective 3.5 - Establish uniform practices and protocols for monitoring that can be applied to watershed needs.

Lead Agency: DNR

Action Step 1 (Revised action step) (DNR-led): Use existing accepted watershed assessment tools, such as the Iowa Pollutant Reduction Calculator, the Nutrient Reduction Strategy matrix, and Agricultural Conservation Planning Framework (ACPF), plus newly-emerging assessment tools, to help complete watershed assessments.

Timeframe: Annually.

Milestone: Assessment tools used to complete watershed assessments annually.

Measure: # of watershed assessments completed with assessment tools annually.

Action Step 2 (Revised action step) (DNR-led): Continue post-project water monitoring within 319-funded watersheds to evaluate long term success of improved water quality in a watershed.

Timeframe: At the completion of 319 projects.

Milestone: Post-project 319 monitoring conducted at the end of 319 projects.

Measure: # of completed 319 projects receiving post-project water monitoring.

Action Step 3 (Revised action step) (DNR-led): Survey cooperators/producers of selected 319 watershed projects after project completion to determine if they internalized water quality into their on-farm decision making process. Survey to determine if their awareness and attitudes are changing and if behaviors are being adopted within the watershed.

Timeframe: At the completion of selected 319 projects.

Milestone: Post-project cooperator/producer assessments or surveys completed at the end of selected 319 projects.

Measure: # of post-project assessments completed at the end of 319 projects by 2022.

Objective 3.6 - Adopt system-based implementation and monitoring strategies versus practice-based approaches.

Lead Agencies: DNR, IDALS

Action Step 1 (Revised action step) (DNR/IDALS-led) Continue to encourage conservation agencies to prioritize watersheds, resource concerns, and implementation strategies to improve water quality.

Timeframe: Annually.

Milestone: Watershed plans developed that prioritize resource concerns and implementation strategies to improve water quality annually.

Measures: # of watershed plans developed annually that prioritize resources concerns and implementation strategies to improve water quality

Action Step 2 (Revised action step) (All): Continue collaboration between Iowa State, NRCS, SWCDs, IDALS, private agronomists, and neighboring states to develop, update, and implement a consistent, comprehensive, and organized set of management recommendations for a broad set of agricultural systems that are consistent with the Iowa NRS and other water quality recommendations.

Timeframe: Annually.

Milestone: Consistent, collaborative ag management system recommendations developed and implemented for Iowa annually.

Measures: # of consistent recommendations developed annually.

Action Step 3 (Revised action step) (DNR-led): Continue implementing water monitoring strategies within 319 watershed project areas.

Timeframe: Annually.

Milestone: 319 watersheds implementing water monitoring strategies annually.

Measure: # of 319 watersheds implementing water monitoring strategies annually.

Action Step 4 (New action step) (NRCS-led): Continue efforts to monitor the water quality results of system-based practices, such as the Conservation Learning Labs projects in Story and Floyd Counties.

Timeframe: Annually.

Milestone: BMP water quality results monitored annually.

Measure: Water quality monitoring results collected and reported annually.

Goal 4: Funding

Objective 4.1 (Dropped: already Completed) - Prioritize existing public programs that support science-based measures identified in Objective 3.2.

Lead Agencies: DNR, NRCS, ISU, IDALS, CDI

Note: The original prioritization objective was completed.

Note: The original Action Step 1 (Determine priorities based on stakeholder needs) and original Action Step 2 (Evaluation of existing public programs) have been completed.

The revised objective and action step below is to coordinate existing programs.

Objective 4.1 (Revised objective) (All) - Coordinate existing public programs that provide financial assistance programs.

Action Step 1 (Revised action step) (NRCS-led): Coordinate existing funding programs through existing agency coordinating committees, such as the NRCS State Technical Committee, and share information through the WRCC.

Timeframe: Annually.

Milestone: Existing funding programs coordinated annually.

Measure: # of funding programs coordinated.

Objective 4.2 - Improve interaction among private sector groups to invest in NPS issues and solutions.

Lead Agencies: IDALS, DNR, NRCS, CDI

Action Step 1 (Revised action step) (IDALS, DNR, NRCS, CDI) Collaborate with NGOs in Iowa to assess their resource commitments to NPS issues by 2022.

Timeframe: By 2022.

Milestone: NGO report on NPS commitments.

Measure: NGO report on NPS commitments completed by 2022.

Action Step 2 (New action step) (IDALS, DNR) (Moved from original Objective 1.5): Increase coordination between public and private entities to better leverage existing funding by developing watershed project plans that coordinate public and private funding.

Timeframe: Annually.

Milestone: Watershed plans developed that coordinate and leverage public and private funding.

Measures: # of watershed plans developed that coordinate public and private funding; amount of leveraged public and private funding coordinated annually.

Action Step 3 (Revised from original Action Step 2) (NRCS-led): Continue efforts by conservation partners to support private sector investment in water quality, identify non-traditional funding partners, and to develop tailored messaging on specific incentives to invest in NPS issues. This includes NRCS's effort to continuing its engagement with Field To Market, the Innovation Center for U.S. Dairy, and similar organizations to support the development of private sector sustainability frameworks.

Timeframe: Annually.

Milestone: Provide annual update on IEDA engagement to support corporate investment.

Measure: Annual update provided.

Original Action Steps 3-10 (Dropped): Combined into revised Action Steps 1 and 2.

Objective 4.3 (Revised Objective) (All) Create new funding sources or revise existing sources to allow local groups to be more flexible in implementing and testing innovative approaches.

New Lead Agencies: ISU, NRCS, IDALS, CDI, DNR

Original Action Step 1 (dropped; already completed): Original Action Step 1 pertaining to the NRCS Interim Conservation Standard process is completed (NRCS).

New Action Step 1 (All): Collaborate to create new funding sources or revise existing sources to allow local groups to be more flexible in implementing and testing innovative approaches

Timeframe: Annually.

Milestone: New funding sources created or existing sources revised to allow for innovative approaches.

Measure: # of new funding sources created or # of existing sources revised.