

Appendix 1

MPCA: Bio Assessment

Will send handout before meeting and bring copy of the notes to go over. The map for the Bio sites will be distributed as well.

MPCA: Stressor ID

If bio crew finds that the water is impaired, the Stressor ID crew will determine what stressor caused the impairment. Uses IBI score as an assessment tool. Can be chemical in nature as well, but mostly tied to biological stressors. Will take water samples and send them to the lab. Report will be finished by fall of 2017. We may want to ask Katherine a little more on this section because the conversation with this individual was not as well structured as others, and I didn't get as much out of it.

MPCA: Tools

The many methods of ranking and measuring priority areas were presented through the use of various tools. GIS layers will most likely be the most common method of prioritization. Layers representing restorable wetlands, buffers, and highly erodible areas can be used. Other layers do exist and we are not confined to just GIS layers. Multiple models exist and can be used based on scale. There are field scale and watershed scale models. Watershed scale models are tested with field scale models. One other model is Zonation, which is a value based strategy. Stakeholders will be given the option of choosing what methods are of value to them. Strategies will be based upon their values. HSPF modeling will be done for sure. Other models are optional.

MPCA: WRAPS Report

Katherine will be writing the WRAPS Report with assistance from Kiel and the partners. The report is one of the last steps to be done because it will tie together all of the data and list the impairments by subwatershed and the strategies for implementation for each. I will bring the Pomme de Terre example. Outlines the findings and provides a basis for applying for BWSR grants. The WRAPS Report is expected to be incorporated into each County Water Plan because it will have known impairments and the priority areas will be identified. This is one of the main functions of the WRAPS Report. Not only is it required to be implemented into the water plans, it is highly recommended because of the tools and its ability to pinpoint the highest priority areas for projects, which BWSR will be looking for in grant applications.

BWSR:

This conversation was closely tied with the WRAPS Report. Matt was concerned with using the WRAPS Report as the actual water plan. He didn't think it was a good idea because WRAPS focus more on surface water quality and water plans focus on a wider variety of things such as groundwater, solid waste.....etc. WRAPS should be incorporated into water plans and can be amended to be more specific when they are inserted into the water plan. Other options include developing a second plan Matt and Mark both thought that having it narrowed down to the HUC 12 is already a big step. Do not need landowner specific locations in the WRAPS Report. Discussion of whether to implement the "one watershed, one plan approach" was also discussed. Political pull might be an issue, not about whether staff will collaborate on the "one watershed, one plan" approach. BWSR wants to stay in the loop throughout the process. Bringing them in at the end and expecting them to be on board with everything is not advised. Civic engagement will be important in figuring out what strategies will be most effective. Civic engagement will most likely need to be on a regional basis. The watershed is too large to only have one group responsible for the whole watershed. Groups should be a wide variety of interest groups.

DNR:

Geomorphology site surveys are being conducted to measure changes in stream reaches over time. Targeted areas are natural meanders with riffles and pools, no ditched areas. Length of study area is usually around 600 yards. GPS location of the elevation of the thalweg and water level are taken and plugged into a program. The program gives a stream

profile based on the points. Markers are pounded into the top, middle, and bottom of the bend (pool) and will be used to track bank erosion and downcutting. Pebble counts are also conducted at random throughout the stream reach to determine primary bed substrate. A total of 100 samples are taken at the cross section at the marked area. Another cross section is taken, this one being at a riffle. Use Bank Erosion Hazard Index to calculate cubic yards or tons of sediment being discharged. Also assess the vegetation along banks, the root depth and density of vegetation, and the amount of slumping and deposition taking place from the bank. Data will allow us to assess flow patterns and erosion problems.



WATERSHED
ASSISTANCE
THROUGH
EDUCATION &
RESOURCES

HERON LAKE WATERSHED DISTRICT

Heron Lake Watershed District

PO Box 345, Heron Lake, MN 56137
507-793-2462 ~ FAX 507-793-2253

Email: jan.voit@mysmbs.com

Web: www.hlwdonline.org

Memorandum

TO: WFDNR and Heron Lake TMDL Implementation Partners
FROM: Kiel Tschumperlin, Watershed Coordinator
DATE: October 8, 2013

Thank you for agreeing earlier this year to be part of the Major Watershed Project that will be conducted in the West Fork Des Moines River (WFDNR) watershed in 2014. As a reminder, the Minnesota Pollution Control Agency will monitor and gather water chemistry and biological information and assess the data. Project partners will assist in developing implementation strategies to meet standards and protect waters. Working together on creating the end product will ensure that the work being completed will be useful to each of our organizations.

We are ready to move forward with Phase I of this project. Phase I involves developing a watershed-scale work plan for our involvement in this process over the next four years. **I will be contacting you the week of October 14, 2013 to schedule a time to meet with you in late October and November.**

One purpose of these individual meetings is to update you on the data that is being collected for the WFDNR Watershed Project. A second purpose of these meetings is to learn what information is needed to develop strategies, civic engagement, and education activities that would be important for developing this watershed-scale work plan. You will be reimbursed for your time and mileage related to the project.

Thank you, again, for agreeing to partner in this effort. I look forward to speaking with you the week of October 14.

Talking Points

Project Background

- MPCA effort to monitor all 81 major watersheds in Minnesota on a 10-year cycle on a HUC 12 or HUC 14 scale
- MPCA will monitor and gather water chemistry and biological information and assess data
- Partners will assist in developing implementation strategies to meet standards and protect waters
- Partners will work together to create an end product to ensure that the work being done will be useful to each organization
- Invoice (time for meeting with Kiel, time and mileage for large meeting in February – copy of timesheet)
 - Only 1 person from each office
- Watershed approach handout
- Monitoring sites handout

DNR Geomorphology Survey

- Measure changes in stream reaches over time
- Targeted areas
- Cross sections of 1 pool and riffle at each site
- Bank assessment
- Pebble counts
- GPS locations
- Bank Erosion Hazard Index

MPCA Biological Assessment

- Site selection – already done
 - Parameters for selection
 - Avoid grass waterways, ephemeral (<5 square mi)
 - Avoid lake and dam influences (1 mile US or DS)
 - Avoid wetlands (naturally low DO, limited flow and habitat available)
 - Prefer natural reaches over channelized until TALU is in place
 - Perennial flow (year round)
- Fish surveys – starting in June 2014
 - Habitat Survey
 - Sample 35X mean stream width
 - Water chemistry samples and field data (Conductivity, DO, DO% Saturation, pH, Water temp, and Secchi Tube)
- Invertebrate surveys – starting in August 2014
 - Same as fish stations
 - Habitat survey
- Analyze data to determine IBI
 - Fish and Inverts indicate overall stream health
- Water chemistry monitoring at 10X sites
 - E-coli assesses Aquatic RECREATION
- Apply for SWAGs
- Use biological and chemistry data to assess water quality (Aquatic LIFE Assessment)
- Fish tissue data – Aquatic CONSUMPTION
- Our role: offer local knowledge and expertise during assessment process
- Our role: positive communicator to support the biological monitoring process
- Our role: apply for SWAGS
- End product: watershed monitoring and assessment report
- End date: fall 2016

- Are there practices that have not been utilized that could be? If so, why haven't they been utilized?
- What have you done to encourage and support public participation in conservation practice planning? How have citizens responded?
- What have you done to encourage and support public participation in conservation practice implementation? How have citizens responded?
- What types of tools, if any, do you usually use to target and prioritize projects?
- What/where are you currently monitoring?
- Are there any informational gaps (lack of buffers, monitoring, streambank erosion, things of that nature)? If so, where and what?
- Any other questions, thoughts, or ideas?

Questions

- Are there social concerns in the watershed that we should be aware of during the planning process?

Hudarites – People/groups that do their own thing

Large scale (Corporate Farming) - Loss of the family farm, no connection to the land

Resistance to changes, getting people to adopt new ideas. They didn't think people would oppose the project as a whole. They may be used to it because of the TMDL.

Not lake people vs. farm people up there

Relatively high number of absentee landowners – These people are probably not the decision makers on the land

None

Some non-cooperative people. People are nosy, curious.

People get nervous when they see lots of PCA and DNR vehicles

None

SWCD & County work well together

Civic engagement – People are saying that it is someone else's issue.

The "it's not my problem it's his" mentality

- What types of best management practices has your organization implemented?

Rock Inlets, waterways, terraces, field windbreaks, buffers, septic, feedlots, wetland restorations, RIM easements, shoreline stabilization, bioreactors, sediment basins, conservation drainage, rain gardens, MMPs, urban forestry

Buffers, wetland restorations, sediment basins, waterways, stormwater ponds, rock inlets, feedlot projects, carp barriers, EQIP, rain gardens, side inlet controls on ditches, bioreactors, grade stabilization structures, j-hook weirs, cedar revetments

Septic upgrades, sediment control basins, buffers on protected waters, waterways, streambank stabilization, wetland restorations, CRP, CSP Program, nutrient management, feedlot fixes, rock inlets, conservation drainage

Native buffer, shoreline restoration, ravines & gullies, bioreactors, saturated buffers, wetland restorations, wetland banking, J-hook weirs, cedar revetments, waterways, buffers, rain gardens, cover crops, conservation drainage, rotational grazing (NRCS), rock inlets, grade stabilization structures

Buffers, wetland restorations, waterways, sed. basins, Nutrient Management Plans (NRCS), shoreline stabilizations, feedlot fixes, septic upgrades.

Applied for j-hooks and cedar revetments.

Waterways, buffers, feedlot fixes, sediment basins, terraces, streambank restorations, alternative tile intakes, cover crops, grazing plans – NRCS, J-hook weirs, wetland restorations, septic, CRP, rock inlets

Sediment Basins, waterways, buffers, CRP, feedlot fixes, cover crops, MMPs, Manure spreader calibrations, septic upgrades, SWAG on the Missouri Basin, Monitor Split Rock Creek, rotational grazing (NRCS), rain gardens.

- Are there practices that have not been utilized that could be? If so, why haven't they been utilized?

Tile Outlet wetland treatment, Wetland restorations – Landowner resistance, economics

Nutrient management planning – lack of participation

Aerial spraying - inaccurate

Conservation drainage – lack of proven benefits

Financial reasons, lack of willingness.

Example) Instead of putting a practice on the ground, he thought the problem was to keep the neighbor's water off his property. (Had gullies but thought holding water back was better)

Flood retention – landowner cooperation, permitting, funding, economics for landowner

More buffers – enforcement foregoes any incentives, need support of county attorney in order to enforce any buffer requirement. The enforcement usually falls short

Conservation drainage – lack of knowledge

Landowner willingness, economics

Channel maintenance will help in the long run- funding to address concerns and staff time

Ex) Removing logs in the channel or beaver dams

Lakeshore restorations – High maintenance, Selling the project, permitting, People don't want to deal with DNR because they may put stipulations on what it has to look like when completed.

Streambank stabilizations – Beaver Creek could use a lot of them. Economics are a problem, rip-rap is expensive

Woodchip bioreactors – lack of knowledge, costs

Reduced tillage and more no-till – Not utilized because of better yields associated with tillage. Higher diesel costs may promote more no-till practices. Most farmers have the hired man anyway and they need to give them something to do.

CNMPs – They are not required. It costs money to create the plan and the actual benefits of it are unknown.

Buffers and Wetlands – Economics, MMPs – Producers that hire an agronomist are doing the best job with these and manure management in general it seems. Full farm planning (NRCS) – Address things such as soil erosion, waste, basically all aspects of the farm. Not utilized because of its complexity. Solid waste and HH waste disposal programs – Not utilized because of cost and it's easier for people to manage it themselves.

- **What have you done to encourage and support public participation in conservation practice planning? How have citizens responded?**

Annual EQIP Mtg. – Send about 100 letters asking people what are important conservation needs in the county, and usually get 5-10 responses.

Annual tour for the watershed board and commissioners

Website, Lack of staff to setup tours/newsletters

Radio Program every other Friday at 1:05 pm on 94.3 FM. Get 5 minutes to talk about whatever they want.

Personal contacts, recommendations. Jackson SWCD does 2 newsletters per year. Andy is working on a shoreland newsletter right now. They held a field day for Fish Lake. Attendees were other districts and lakeshore owners or stakeholders. Will do newspaper articles on projects if the landowner allows. If someone comes in to Andy's office, he may recommend them to the SWCD office for a project or for further assistance.

Newsletters, website, tours, walk-ins, cross compliance things – wearing multiple hats.

Project plans with both counties – ask for public opinion

Have interested landowners to do projects and people are on board with it

Flood storage project – Interest rises and falls with storm events

People have a short memory of storm events

Elm Creek Advisory Committee, Newsletter, Weekly Radio, Website, Booth at the fair, Photo press in the paper, Some special news articles, tours, field days (bioreactor site)

Fair booth, Annual newsletter (cost is/has been becoming an issue), occasional newspaper articles, county website
Also did bus tours of practices several years ago – Got more government employees and not landowners like they wanted.

Did a tour for a retention structure – Turnout to this event was poor

Newsletters, tours, partnerships, NRCS does a radio chat

Manure and water sampling kits, tours, Newsletters, radio spot, direct mailings, website, U of M Manure management presentation, NRCS has hosted grazing workshops – Attendees are primarily 12-15 proactive producers. Acquired a 319 grant for the Holland Well field (Wellhead protection area) – Wrote nutrient management plans for all feedlots in that area. They also ask their Soil and Water board where they want to target conservation practices. Contingent upon board approval, but highly likely they will be hiring a PF Farm Bill position in January to promote installation of conservation practices.

- What types of tools, if any, do you usually use to target and prioritize projects?

David Mulla from the U of M conducted a SPI on the Minnesota River Watershed which encompasses GBERBA. For Cottonwood, they used LIDAR in the county to identify other potential highly erosive sites. They sent 75 letters to people telling them that their site is a high priority for erosion. They received 20-25 responses back, which Dave thought was very good. Cottonwood SWCD also offered field visits to walk over the site with the landowner. Dave commented on the lack of staff for the field visits.

-Also use EQIP – NRCS Program

-Property transfers to update septic systems.

GIS, LiDAR, and streampower index

Soil and water board

NRCS soil loss calculations, Runoff calculations – RUSLE

Shovel ready projects

LiDAR, pictometry, local knowledge

GIS, LiDAR, willing landowners

A landowner with a problem or complaining of a problem

Local knowledge

LiDAR, GIS layers, water plan, landowner contacts, volunteers

GIS layers, monitoring data, LiDAR, common sense, local knowledge

Missouri River Basin – Terrain analysis through LiDAR, Land use layer (GIS). Aerial Imagery, GIS layers. Also have a board approved 50% cost share on waterways and terraces. Most people use EQIP instead because it pays better. Also use a strategy developed by NRCS in the mid 1990's called a transect survey. The points are picked at random by the DC and fields are observed for crop residue, crop rotations, and any conservation practices.

- What/where are you currently monitoring?

Nothing

No sites currently being monitored in the WFDNR watershed in Jackson County. Did do SWAGs in 11' and 12' for the Missouri River Basin

None in the County and none in the WFDNR

Elm Creek and Bioreactor sites – Neither are in East or West Fork
Citizen monitoring on lakes – East Fork

Citizen lake monitors, secchi disk – Lake Shetek
Maybe did some monitoring on Fulda

Indian Lake, A lot of locations in the Rock River Watershed

SWAGs – Missouri – 2011 and 2012
Groundwater monitoring – DNR wells
Split Rock Creek – baseline data in 2011 and 2012

- Are there any informational gaps (lack of buffers, monitoring, streambank erosion, things of that nature)? If so, where and what?

Closing open intakes, Buffers, wetlands

*Anyone will do it for the right price

Paperwork takes so long for conservation practices, people don't want to wait that long. Takes 4-5 years to implement WRP

They believe they have a pretty good idea where the problems are, but quantifying them is probably the data gap. Running scenarios and getting numbers would help them to quantify things better. People want economic reasons for doing things. Getting people to buy in on the projects can be tough. We don't necessarily need the monitoring, but it's more of a practicality issue when putting projects on the ground. Example- Is it feasible to expect everyone to do the strategies proposed?

-Do more "what if scenarios"

-Need more quantifiable info. Might know where problem sites exist but there is no -quantifiable info, which is what grants usually require

-Lack of staff

Quantifiable numbers, Could use some more knowledge on where problem sites are as well

Have a good idea where most problems are, but they could use a little more knowledge to address others and need quantifiable numbers

Where can we do more wetland restorations?

Buffers

They have most of the information, but it is not quantified

Windshield Surveys – Observing buffers....etc.

Staff is a limiting factor

- Any other questions, thoughts, or ideas?

Both were not too impressed that there is no implementation dollars tied to this (Another study)

Dave was supportive of the study considering it would get us closer to funding

Need to keep CE going after the grant is done, or figure out a way.

In regards to civic engagement, there was not much support for it. They believed people don't/won't show up for meetings/hearings.etc. I tried to get them thinking in the frame of mind using the zonation model by asking them what's more important to them. That constitutes as engagement because it is giving them a chance for input. Brian and Andy also expressed concern that CE is not very relevant because their points/concerns are probably not going to

be used anyway. Did not really know/have much experience with CE. Brian also had a question if there was any flow data being collected with the project.

Lack of staff to do tasks – only 3 people in office

Have the dollars – just need to get the program developed

They are interested in combining the East and West Fork Watersheds. They have them as 1 watershed in their water plan. Combining them would make the most sense especially if we are going to implement the one watershed, one plan idea. Their involvement in the West Fork will be very minimal if we don't combine them. They have not had much dialogue with Scott about the East Fork yet. Don't have their sites map or anything as of this meeting.

None

Have not been doing a lot of CE in focus groups. You could pick who you want in it. Have farmer, city people, or township official groups that are independent of each other. Each group could be asked what they believe the problems are.

Work plan – Phase II

How are we supposed to draft a workplan for Phase II when we don't know where/how many impairments. Work plan would be changing based on results. (Question has already been addressed)

- Need to figure out SWAG RFP and monitoring. Who is doing it? Them or me?

Need to discuss SWAG information with Kay

Brian will apply for the SWAG grant. Monitoring will be dispersed based on location. Some will be done by them and some will be done by Kiel. Who will do what sites has yet to be determined.

No 10X sites in Lyon County

Will figure out the SWAGS when we look at the East Fork Map. There are none in the West Fork.

Chris is applying for the SWAG Grant

They are doing the SWAGs

None in Pipestone County

Other Notes:

-People say things such as, "My act of conservation is getting rid of water as fast as I can."

-Dave went out to pursue a landowner to put in a conservation practice in one of his fields. The practice was minimally invasive on his farming operation. The landowner didn't want to because it would get in his way. A year later Dave drove by the site and the guy had a windmill in the middle of the field with a road leading up to it.

People will do anything for the right price

-Dave didn't seem to be a fan of CE

Said that PCA is going to do what they want regardless of what people say anyway

Said they tried things like this in GBERBA – Did lots of work and nothing ever materialized.

-Look over Memorandum of Understanding

-Search for an LGU to take the lead on the flood storage project (project sponsor or a governance structure) Someone to sign their name on the grant

-Funding mechanism

-Wants someone with some authority or power

-Have plans and “feasibility study” done for several sites for flood storage in Lake Yankton watershed.

Other Notes:

Problems with CREP easements – Can get \$400 an acre rent by keeping it in production, permanent easement, people don't like all the paperwork. It can take up to 3-5 years to get an easement in place. By that time, people are turned off by the paperwork and may have changed their mind by then. When people want to do something, they usually want it pretty quick.

Problems with Civic Engagement:

If we ask for public input, people will say to put dams in Beaver Creek to hold back the water.

Answers will vary, some people have some interesting thoughts. For example: Murray County did a wetland restoration by Dovray, a guy at the public hearing was complaining that the wetland complex will provide a breeding grounds for mosquitos and disease will occur because of all the mosquitos as a result of the wetland restoration.

Appendix 2

Setting expectations (Being transparent)

Our **time** together today is **limited**. Because we value your knowledge and perceptions about the work you are doing in the WFDNR watershed, we are focusing today's meeting on gathering more information from you.

Today's **meeting** is **structured** in a manner unlike any in which you normally participate. This is done intentionally so that the **information** gathered can be **used** to inform future actions that will be developed in the WRAPS report.

Questions may arise. We do not want you to think that those questions are unimportant. While we will not be spending time today answering questions, we do want to make sure that your questions are duly noted. You will have an opportunity to document those questions on the survey you will receive. The questions will be collected, answers will be found, and we will provide that information by email at a future date.

We **greatly appreciate** your participation in this endeavor as we gather more information from you to make the resulting WRAPS report something that is valuable and useful to each of our organizations.

Break into groups and identify three things – personal and/or professional – that they have in common. Groups will report back what they have in common.

The main thing we have in common is that we are working for clean water and care about water quality. It is why we are working together on the watershed approach. (Turn over to Kiel – watershed approach activity)

Major Watershed Project
Partner Meeting Planning Session
January 9, 2014

Attendees: Barb Radke, University of Minnesota; Katherine Pekarek-Scott, Minnesota Pollution Control Agency; Kiel Tschumperlin and Jan Voit, Heron Lake Watershed District

1. Individual Partner Meetings

Summaries of each of the seven individual meetings were distributed and reviewed. There were many similarities in each organization. Review of the individual meeting summaries helped to determine the needs to: share information gathered at the individual meetings, understand the “themes” from the counties and determine what can be done about it at the watershed level, gather input for the work plan from the group to assure that this is “our” plan, not Kiel’s, explain the watershed approach, clarify civic engagement, and get a better understanding of education needs.

Discussion was also held regarding the kickoff meeting that MPCA will be hosting in March. This meeting will involve all of the partners, BWSR, MPCA, and DNR. At a later date, time will be spent determining how to restructure this event so that it is not a typical meeting containing presentations.

2. Partner Meeting

Discussion was held regarding the meeting that will be held on February 6, 2014. The main points that need to be addressed are the watershed approach, civic engagement, and education. The objective of the meeting will be to employ civic engagement methods to obtain information from the partners to address data gaps, civic engagement, and education/outreach.

The tentative agenda follows.

Welcome and introductions will begin at 10:30 a.m. Participants will be asked to introduce themselves. They will be asked to break into groups and identify three things – personal and/or professional – that they have in common. Groups will report back what they have in common.

Jan will then remind everyone of the main thing that we have in common – that we are working for clean water and care about water quality. Participants will be broken into groups of five, making sure that co-workers are not in the same group.

From 10:50 a.m. to 11:05 a.m., groups will focus on the watershed approach. Each group will specifically address the following question, “If you needed to explain the watershed approach to people you work with or a member of the general public, what would you say?” Groups will have three minutes to write down two or three sentence responses. Each group will then have a chance to report back.

Kiel will thank everyone for participating in the individual meetings. He will give a summary of the information gathered from 11:05 a.m. to 11:15 a.m.

Participants will remain in their small groups. There will be rotating stations at which three topics will be discussed: data gaps, civic engagement, and education. Katherine will be the moderator for this session. Kiel, Barb, and Jan will be table hosts. Fifteen minutes are allotted for each topic. At the third station, each group will be asked to put out common themes and report back.

At 12:15, Barb will give a short explanation of civic engagement. Participants will be asked for their final thoughts on the day. Kiel will give a short summary of what the next steps will be.

3. Next Steps

Barb, Katherine, Kiel, and Jan will meet via conference call on January 29, 2014 at 2:00 p.m. The purpose of the conference call is to finalize the questions that will be discussed at the rotating stations.

**West Fork Des Moines River
Partner's Meeting
Convener's Outline**

NOTE: Supplies color-coded

Blue = Kiel (Convener)

Orange = Jan (Convener)

Red = Barb (U of MN Extension/coach)

Green = Katherine (MPCA/support)

Time	Activity	Process	Supplies/Assignments
9:45	Conveners arrive	Review and set-up	
10:15	Attendees Arrive and Mingle		Jan: Name tags Coffee and snacks?? Barb: Sign-in sheet
10:30	<p>Welcome ,Overview, and "Three Things in Common Kiel – Welcome and have them introduce themselves. (up to 8 minutes) Jan – "Three things in common" (up to four in a group NOT with people they normally work with...leave it up to Jan to get them into appropriate small groups.) (12 minutes total including five minutes for small group conversation plus sharing with large group)</p>	<p>Kiel: Brief welcome and introductions (name and organization). Jan: Do the "three things in common." NOTE: not obvious thing in common like all have glasses. They can come up with more than three (give them five minutes total) and then share with large group. Jan will segway with one of main things we have in common is watershed...</p>	
10:50-11:05	<p>Watershed Approach Kiel or Jan Five minutes to discuss with same small group from previous "Three Things", three minutes to write it down and 30</p>	Attendees are asked to answer the following question in a small group and come up with and write down a group answer to the	Barb: Pens and paper

	seconds to share with large group.	question “If you needed to explain the watershed approach to people you work with or members of the public, what would you say?”	
11:05-11:15	Interview Overview Kiel	Thank everyone for participating in individual meetings and give brief overview/summary of key common themes (3-4). The three we are focusing on today are gaps, civic engagement and education.	
11:15-12:15	Rotating Stations: Jan Explain and oversee process to attendees. Intro: 3 minutes Station #1: 12 minutes Station #2: 15 minutes to include 3 minute overview by table host. Station #3: 23 minutes including 3 minute overview by host and 8 minutes to identify 3 common themes. Report to large group: five minutes TOTAL/1 minute per group.	Three topic stations at which three topics will be discussed (gaps, civic engagement and education). Attendees will rotate to stations a total of three times. Each topic station will “go deeper” into the question with questions building upon the preceding questions. There will be a table host to briefly share the previous conversation to participants. At last station stop #3, participants will also look for common themes to share to large group.	Gaps: Kiel Civic Engagement: Barb Education: Jan Time Keeper: Katherine Question Design: Barb with input from others Barb: Flip Charts Markers Questions printed for tables Table Etiquette printed
12:15-12:30	Brief Civic Engagement Overview Barb Thank you and Next Steps Kiel Evaluation Jan		Barb: Evaluation form

12:30	Adjourn		
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Gaps:

Question 1: What additional information and data currently not available would be helpful to you in your work?

Question 2: What suggestions do you have for filling these information and data gaps? Questions 3: What resources are available to fill these information and data gaps?

Civic Engagement:

Question 1: What is your understanding of the words “civic engagement?”

Question 2: When engaging with the public, what contributes to a “conversation” on water quality that builds trust and partnerships?

Question 3: What challenges are there to having a “conversation” with the public on water resource management?

Education:

Question 1: What are current educational efforts to raise awareness and understanding of the public in relationship to water quality and water resource management?

Question 2: What resources are available for educational efforts?

Question 3: What are suggestions for improving educational efforts?

ROTATING STATIONS' ETIQUETTE

- **Contribute your thinking and experience**
- **Share the conversation time**
- **Listen to understand**
- **Record your thoughts in words and pictures on the flipchart paper**



Hosts:

- **Print the question at the top of a flipchart paper. One question per flipchart paper. Read the question to participants.**
- **Review the Conversation Etiquette. Be sure no one dominates the conversation, ask those who have not spoken if they have anything they would like to add, and encourage participants to stay focused on the question asked.**
- **Provide each participant with a marker and encourage them to write/draw their responses on the flipchart during the conversation. Host should also be taking notes.**
- **For rotations 2 and 3, give a brief update on the previous conversations.**

Gaps:

Question 1: What additional information and data currently not available would be helpful to you in your work?

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gaps? Questions 3: What resources are available to fill these information and data gaps?

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Question 3: What are suggestions for improving educational efforts?

Please rate the following aspects of the session:

	Not at all			To a great extent		
a. To what extent are you satisfied with today's session?	1	2	3	4	5	6
b. To what extent do you feel you had an opportunity to share your thoughts?	1	2	3	4	5	6
c. How likely is it you would attend another session?	1	2	3	4	5	6

4. Please answer the following: (Write legibly)

a. What did you like about today's session?

b. Is there a question you have that was not answered today? If so, what was that question...

b. What additional comments about this session, if any, would you like to share?

West Fork Des Moines River Partner Meeting

If you had to explain the watershed approach to others in your office or to landowners, what would you tell them?

- It is about the watershed boundary, not a political boundary.
- Multiple agencies combining efforts on a common goal.
- Creating awareness by the public to where the water goes.
- Not sure on the governance of the process.
- WRAPS is short term component to working on a watershed plan.
- Education on what is a watershed.
- Assessing the watershed condition and education.
- Communicate the tie between the condition of the watershed to the land with the landowners.
- Need to prioritize major issues in the watershed.
- Big picture:
 - Encompasses more than individuals.
 - Rural and urban both play a part.
 - Not bordered by conventional political boundaries.
 - Both crop and livestock producers need to be involved.
 - All levels of government (county, city, township) and public need to coordinate
 - Need to link land usage to water resources in general.

Other Notes

- We need to spend more money on implementation and not on another study.
 - Start with enforcing current rules such as septic systems. If we could spend all this money on fixing septic systems, all systems would be upgraded.
- What will all of this data gathering do to implement BMPs in the near future?
- MPCA programs change about every five years and so will this one.
- BWSR changes what they require for grants, so how do we know what information to get if we do not know what BWSR will want.
 - Even if we know what BWSR wants for a grant application that does not mean an application will get funded if it meets all of the requirements.

Table Host Notes

Education

Question 1: What are current educational efforts to raise awareness and understanding of the public in relationship to water quality and water resource management?

- Cottonwood SWCD – 5th Grade Conservation Day
- Cottonwood County – permitting
- Martin SWCD – youth environmental awareness
- Nobles County – Southwest Research and Outreach Center youth education
- All: fair booths, farm and home shows
- Cottonwood SWCD: USDA update on KDOM radio
- Nobles County: in the past have done radio interviews
- Martin SWCD – some education on subwatershed basis
- All: websites, newsletters, newspaper articles

Summary: education with youth is easiest, we know how to do that. One-on-one meetings with landowners work. We do not know the best ways to conduct education with landowners on a large scale.

Question 2: What resources are available for educational efforts?

- Personal knowledge
- Radio interviews
- Newspapers articles and newsletters
- University studies
- Extension staff
- Colleges, water festivals, schools,
- Peer to peer
- State websites
- Landowners that come in the office
- Funding?
- PEBC
- Crop consultants
- Financial professionals
- Television
- Social media
- Federal farm bill

Summary: The resources that are listed can be used by staff and the general public. Uncertain what the general public sees as the best education resource.

Question 3: What are suggestions for improving educational efforts?

- We are not good at doing education, so we do what is easiest, just to get by.
- Experiences with education have proven to be counter-productive.
- We are not trying to be condescending, but we do not think education about water quality really matters to the general public.
- We do not have the financial resources to compete with large equipment or chemical companies. Their messages get through to landowners more than anything we could do. It is hard to get people to pay attention to what we want them to do.
- We are strong in meeting one-on-one with landowners. Fair booths can be a good opportunity for those types of conversations.
- We need to make ourselves become comfortable with social media if we want to reach a younger group of people who are using cell phones/smart phones and the internet.

- Funding affects how we conduct business. If we had the funds to hire someone strictly for education, that would be best. That would provide a way to get local information to the people who are affected by what we want to do to improve water quality.
- Most people are not engaged in conservation until it affects them directly or until it is too late to make a difference. We need to figure out how to make people aware that way they do affects a watershed.
- We need to identify key people who know and understand conservation and have them help us with education.

West Fork Des Moines River Watershed
Partner's Session
February 2014
Table Host Notes: Civic Engagement

Question 1: What is your understanding of the words "civic engagement."

Getting people together such as fishing or canoeing, doesn't get farmers in.
Get urban and rural people together.
Civic Engagement is involving people that want to be involved. Many don't want to be involved.
Hard to engage those that don't want to change.
Society in general is very busy.
People don't care – not high priority.

Civic engagement:

- Getting public involved (that has failed miserably if tied to conservation)
- Bringing different demographics together to establish buy-in and seek input
- Leadership role: who is in charge, what make me to do, "political"
- Public relationships
- New buzz word
- Public participation and governance

Question 2: When engaging with the public, what contributes to a "conversation" on water quality that builds trust and partnerships?

Public meetings

- Open forum, often not willing to listen or be constructive
- Helps if public knows their role and do they have decision-making authority
- Having staff and leadership with unified goal for the meeting
- Goal and outcome of the meeting being clear
- If purpose of the meeting is solutions, need sound solutions and ways to address (farm policy not match with conservation)
- More information on the front end and outline/synopsis
- Transparency and clarity up front about the meeting
- Tap into the silent majority

Does not help when perception of "government meeting" and public has no real voice and is only for "rubber stamping" and formality, not really influence.

Disconnect between public and government and what is the real amount of influence if any
People come loaded with information and not always accurate information

Question 3: What challenges are there to having a "conversation" with the public on water resource management?

Need success stories for credibility

People that don't want to work with government. Only do things they want to get done. Won't listen
To government vs. not engaged. Too many government people.

General involvement when send invitations out. Difficult to get people to come

Breaking point...pre-conceived notions on both sides. "they just don't want to do it" or landowners only about money is government thought and sometimes it is more than that, cost prohibitive. "I am doing my part" is public thought" or "government is just out to get me."

Would rather stay home and not know

Silent majority at meetings who don't always speak out at meetings

Afraid to make neighbor angry so won't speak up at meeting

Neighborhood bullies

Someone gets on soapbox and takes all the time

Can tell until blue in the face what can be done yet no implications for not doing

Need to get them engaged and involved in solutions

**West Fork Des Moines River Watershed
Partner's Session
February 2014
End of Session Participant Feedback**

<i>Please rate the following aspects of the session:</i>	<i>Mean Score</i>
a. To what extent are you satisfied with tonight's citizen conversation?	4.8
b. To what extent do you feel you had an opportunity to share your thoughts?	5.4
c. How likely is it you would attend another citizen conversation?	5.2

On a 1-6 point scale, with "1" being not at all and "6" being to a great extent, here is the mean (average) for each question. You need to keep in mind, that typically individuals have a pre-determined idea of how the meeting will be structure based on past experiences, so that can affect "a." And that attendees may have a "hidden agenda" for what they want to cover and say...which may or may not be the focus of that particular meeting. The meeting was successful in terms of staying focused on the purpose of the meeting and conversation and remaining civil.

What did you like about today's session?

Very interactive
Express commonalities between entities and explain what has worked previously
Low key – opportunities for interaction
It was different, not a powerpoint or something
Ability to discuss important topics
Spelling out what was happening
Everyone had a chance to share thoughts
Conversations not dominated
Nobody had to sit in silence
The coffee and the cookies and I thought there was good interaction between everyone
Good opportunity to share ideas
Discussion
I got to share my opinions with others who had to listen. Cooperation among counties/SWCD/state agencies
Chance to talk about Des Moines watershed
Interaction with peers
Good format
Folks came together
Small group discussion technique used got points brought out
Pleasantly surprised
Enjoyed how staff and agencies came together and the attendance
Impressed by how people together and talked
Kept them interested

Is there a question you have that was not answered today? If so, what was that question...

What incentive does the landowner have to get involved – is there something to lose?
Who, what and why?
Not really, I was a fill-in that came in not even knowing what the meeting was/is for
Are we to the point of regulation to further water quality implement(sp)?

What additional comments about this session, if any, would you like to share?

Good cookies.
Maybe less "explanation" about the table switching up front. Yes that's what it's going to do (switch), but it got a tad confusing when you were trying to explain the three questions and then summaries.
Interesting new way to have meetings! Works well in small groups.
Have great optimism that the watershed approach will result in better implementation.

Coming to this meeting just for my supervisor to report back to and I knowing nothing about it. I was able to contribute comfortably.

Good for public meetings.

Not one that likes to talk, would rather listen.

Very experienced and knowledgeable group of partners. Maybe so much experience that views will be difficult to change.

Appendix 3


**Minnesota Pollution
Control Agency**

 520 Lafayette Road North
 St. Paul, MN 55155-4194

Project Work Plan

Doc Type: Contract

MPCA Use Only	
Swift #:	
CR #:	

Project Title: West Fork Des Moines River Major Watershed Project Phase II

1. Project Summary:

Organization: Heron Lake Watershed District (HLWD)

Contractor Contact Name: Jan Voit

Title: District Administrator

E-mail: jan.voit@mysmbs.com
Contact Name: Amanda Schultz

Title: Watershed Coordinator

E-mail: amanda.schultz@mysmbs.com
Address: PO Box 345
 Heron Lake, MN 56137

Phone: 507-793-2462

Fax: 507-822-0921

Subcontractor(s)/Partner(s):

Organization: University of Minnesota Extension

Project manager: Barb Radke

Address: 863 30th Ave SE
 Rochester, MN 55904

Phone: 507-995-1631

E-mail: radke008@umn.edu
Project manager: Karen Terry

Address: 46352 State Highway 329
 Morris, MN 56267

Phone: 320-589-1711

E-mail: kterry@umn.edu

MPCA contact(s):

MPCA project manager: Katherine Pekarek-Scott

Title: Project Manager

Address: 1601 East Highway 12, Suite 1
 Willmar, MN 56201

Phone: 320-441-6973

Fax: 320-214-3787

E-mail: katherine.pekarek-scott@state.mn.us

Project information

Latitude/Longitude: 43.556/-94.956

***County:** Murray, Nobles, Cottonwood, Jackson, Lyon, Pipestone, and Martin

Start date: 01/01/2015

End date: 06/30/2018

(mm/dd/yyyy)

(mm/dd/yyyy)

Total cost: \$175,000.00

***Full time equivalents:** 2.59

***Major watershed(s):**

- | | | | | |
|---|--|---|---|--|
| <input type="checkbox"/> Statewide | <input type="checkbox"/> Kettle River | <input type="checkbox"/> Miss Rvr – GrandRpds | <input type="checkbox"/> Rainy Rvr – Baudette | <input type="checkbox"/> So Fork Crow River |
| <input type="checkbox"/> Big Fork River | <input type="checkbox"/> Lac Qui Parle River | <input type="checkbox"/> Miss Rvr –Headwaters | <input type="checkbox"/> Rainy Rvr – Black Rvr | <input type="checkbox"/> Lower St. Croix Rvr |
| <input type="checkbox"/> Upper Big Sioux Rvr | <input type="checkbox"/> Lake of the Woods | <input type="checkbox"/> Miss Rvr –LaCrescent | <input type="checkbox"/> Rainy Rvr – Rainy Rvr | <input type="checkbox"/> Upper St. Croix Rvr |
| <input type="checkbox"/> Lower Big Sioux Rvr | <input type="checkbox"/> Lake Superior – North | <input type="checkbox"/> Miss Rvr – Reno | <input type="checkbox"/> Rapid River | <input type="checkbox"/> St. Louis River |
| <input type="checkbox"/> Blue Earth River | <input type="checkbox"/> Lake Superior – South | <input type="checkbox"/> Miss Rvr – Sartell | <input type="checkbox"/> Red Lake River | <input type="checkbox"/> Red Rvr of the North
Tamarac River |
| <input type="checkbox"/> Bois de Sioux River | <input type="checkbox"/> Le Sueur River | <input type="checkbox"/> Miss Rvr – St. Cloud | <input type="checkbox"/> Upper Red Rvr | <input type="checkbox"/> Thief River |
| <input type="checkbox"/> Buffalo River | <input type="checkbox"/> Leech Lake River | <input type="checkbox"/> Miss Rvr – Twin Cities | <input type="checkbox"/> Redeye River | <input type="checkbox"/> Two Rivers |
| <input type="checkbox"/> Cannon River | <input type="checkbox"/> Little Fork River | <input type="checkbox"/> Miss Rvr – Winona | <input type="checkbox"/> Redwood River | <input type="checkbox"/> Upper/Lower Red Lk |
| <input type="checkbox"/> Cedar River | <input type="checkbox"/> Little Sioux River | <input type="checkbox"/> Miss Rvr – Lake Pepin | <input type="checkbox"/> Rock River | <input type="checkbox"/> Upper Iowa River |
| <input type="checkbox"/> Chippewa River | <input type="checkbox"/> Long Prairie River | <input type="checkbox"/> Mustinka River | <input type="checkbox"/> Root River | <input type="checkbox"/> Vermillion River |
| <input type="checkbox"/> Clearwater River | <input type="checkbox"/> Red Rvr of the North
Marsh River | <input type="checkbox"/> Nemadji River | <input type="checkbox"/> Roseau River | <input type="checkbox"/> Upper Wapsipinicon
River |
| <input type="checkbox"/> Cloquet River | <input type="checkbox"/> MN Rvr – Yellow
Medicine River | <input type="checkbox"/> No Fork Crow River | <input type="checkbox"/> Rum River | <input type="checkbox"/> Watonwan River |
| <input type="checkbox"/> Cottonwood River | <input type="checkbox"/> MN Rvr – Headwaters | <input type="checkbox"/> Otter Tail River | <input type="checkbox"/> Red Rvr of the North
Sandhill River | <input checked="" type="checkbox"/> DesMoines Rvr Hdwtrs |
| <input type="checkbox"/> Crow Wing River | <input type="checkbox"/> MN Rvr – Mankato | <input type="checkbox"/> Pine River | <input type="checkbox"/> Sauk River | <input checked="" type="checkbox"/> Lower DesMoines Rvr |
| <input type="checkbox"/> E Fork DesMoines Rvr | <input type="checkbox"/> Lower MN River | <input type="checkbox"/> Pomme de Terre Rvr | <input type="checkbox"/> Shell Rock River | <input type="checkbox"/> Wild Rice River |
| <input type="checkbox"/> Red Rvr of the North
Grand Marais Creek | <input type="checkbox"/> Miss Rvr – Brainerd | <input type="checkbox"/> Rainy Rvr – Hdwtrs | <input type="checkbox"/> Snake River | <input type="checkbox"/> Winnebago River |
| | | | | <input type="checkbox"/> Zumbro River |

- *Organization type:**
- | | |
|---|---|
| <input type="checkbox"/> Federal government | <input checked="" type="checkbox"/> Local/Regional government |
| <input type="checkbox"/> For-profit | <input type="checkbox"/> Private college/university |
| <input type="checkbox"/> Individual | <input type="checkbox"/> Public college/university |
| <input type="checkbox"/> Non-profit | <input type="checkbox"/> State government |

- *Project type:**
- | | | |
|---|-------------------------------------|--|
| <input type="checkbox"/> Analysis/Interpretation | <input type="checkbox"/> Modeling | <input type="checkbox"/> Research |
| <input type="checkbox"/> Assessment/Evaluation | <input type="checkbox"/> Monitoring | <input type="checkbox"/> Restoration/Enhancement |
| <input type="checkbox"/> Demo/Pilot project | <input type="checkbox"/> Planning | <input checked="" type="checkbox"/> Technical assistance |
| <input checked="" type="checkbox"/> Education/Outreach/Engagement | | |

2. Statement of Problems, Opportunities, and Existing Conditions

Why the Project is Taking Place

The Minnesota Pollution Control Agency (MPCA) is committed to working with a range of partners using a watershed approach that addresses all of Minnesota’s 81, 8-digit HUC watersheds, within a ten year cycle. The major components of the approach include unified methods to: 1) monitor and gather information, 2) assess the data, 3) develop implementation strategies to meet standards and protect waters, and 4) implement water quality protection and restoration activities. Intensive watershed monitoring began in the West Fork Des Moines River (WFDMR) 8-digit HUCs in 2014. This monitoring work expands on previously established routine water quality and flow sampling to include extensive fish and aquatic invertebrate surveys. Following completion of the intensive watershed monitoring, subsequent steps include assessment of the monitoring data to determine impairments, identification of stressors that are causing impairments, development of Total Maximum Daily Loads (TMDLs) using identification of pollutant sources using computer modeling and other techniques, civic engagement, and public education as approaches in progress towards water quality goals. The project will culminate in a set of strategies to restore impaired waters and protect unimpaired waters. These strategies will ultimately be executed by state and local governments, citizen organizations, businesses, and individuals.

In 2014, the WFDMR watershed initiated the MPCA’s Major Watershed Restoration and Protection Project process. This process encompasses a ten-year timeline where data collection, assessment, and implementation occur. The project commenced with intensive monitoring where biological data was collected along with physical and chemical data of streams and lakes in selected subwatersheds. There are 70 proposed stream sites to be sampled for biological data, 15 stream sites for water quality, and one site for fish tissue. Water samples will be collected on one lake. A majority of the data collection will be done by the MPCA with the exception of water samples collected by two local project sponsors. This monitoring will be conducted at 15 sites, is funded through the Surface Water Assessment Grant (SWAG) program, and is not reflected in this work plan.

A Watershed Coordinator will be hired through this work plan. Time spent on the project will be allocated to community involvement and education, assisting MPCA with biological monitoring and stressor identification, participating in meetings, analyzing information, identifying and using tools, developing priority areas and restoration/protection strategies, and coordinating the project.

Watershed Description

Locally, the Des Moines River Headwaters (8-digit HUC 07100001) and the Upper Des Moines River (8-digit HUC 07100002) are considered to be the WFDNR. For this reason, these two major watersheds will be combined into one project and the necessary tasks will be completed simultaneously with shared deliverables.

The WFDNR watershed is part of the Western Corn Belt Plains and Northern Glaciated Plains ecoregions. The watershed extends across seven counties: Murray, Cottonwood, Jackson, and Nobles and small portions of Pipestone, Lyon, and Martin. It covers an area of 1,333 square miles. The river originates in the northwestern part of the watershed from several lakes including its principal source Lake Shetek. The river flows from the Lake Shetek outlet near Currie in a southeasterly direction for 94 miles to the Minnesota/Iowa border and eventually enters the Mississippi River at Keokuk, Iowa. The river is mainly slow flat water except for some moderate rapids near Kilen Woods State Park. The overall gradient from the Talcot dam to Jackson is approximately 2.1 feet per mile. The dominant land use in the WFDNR watershed is row crop agriculture (~85.5%), with 9.5% pasture/open, 3% water/marsh, 1.5% urban, and 0.5% forested. Land adjacent to the stream is utilized for pasture, cropland, urban development, and recreation. Agricultural production is a dominant and vital part of the economy for this region.

The Heron Lake subwatershed has an established watershed district. The Heron Lake Watershed District (HLWD) was formed in 1970 with a mission to protect and improve the water resources within its boundaries by supporting watershed residents through the use of education and financial programs. The HLWD covers about 472 square miles and works with the landowners in this area to install Best Management Practices (BMP) to increase the water quality. They are also active in informing citizens about environmental issues, research conducted, and education on BMPs.

Existing Conditions

To date, 24 stream reaches and 15 lakes have been assessed. These stream reaches and lakes have been found to not be meeting at least one beneficial use. Within the 24 stream reaches, there are 36 impairments listed on the draft 2012 Impaired Waters List with some reaches not meeting more than one beneficial use. In 2009, a TMDL Report was approved by the Environmental Protection Agency addressing 33 impairments on 21 stream reaches and two lakes. Table 1 identifies those stream reaches and lakes that have been identified as impaired.

Table 1: Impaired waters in the WFDNR watershed

Reach Description	ID	Impaired Use	Impairment Cause	TMDL Status
Des Moines River: Windom Dam to Jackson Dam	07100001-501	AqLife	Ammonia (Un-ionized), Dissolved Oxygen	Required
Des Moines River: Windom Dam to Jackson Dam	07100001-501	AqRec AqLife	Fecal Coliform, Turbidity	Approved
Lake Shetek Inlet: Headwaters to Lk Shetek	07100001-502	AqRec	Fecal Coliform	Approved
Beaver Creek: CD 20 to Des Moines R	07100001-503	AqRec AqLife	Fecal Coliform, Turbidity	Approved
County Ditch 20: Headwaters to Beaver Cr	07100001-504	AqRec	Fecal Coliform	Approved
Jack Creek, North Branch: Headwaters to Jack Cr	07100001-505	AqLife	Turbidity	Approved
Elk Creek: Headwaters to Okabena Cr	07100001-507	AqRec AqLife	Fecal Coliform, Turbidity	Approved
Lower Lake Sarah Outlet : First Unnamed cr on Lk Sarah outlet str to Lk Shetek inlet	07100001-508	AqRec	Fecal Coliform	Approved
Jack Creek: JD 26 to Heron Lk	07100001-509	AqRec AqLife	Fecal Coliform, Turbidity	Approved
Okabena Creek: Unnamed cr to T102 R38W S6, north line	07100001-512	LimUse	Escherichia coli	Required
Upper Lake Sarah Outlet: Lk Sarah to Unnamed cr	07100001-513	AqRec	Fecal Coliform	Approved
Unnamed creek: Unnamed cr to Unnamed cr	07100001-517	AqRec	Fecal Coliform	Approved
Unnamed creek: Unnamed cr to Lk Shetek	07100001-519	AqRec	Fecal Coliform	Approved
Des Moines River: Heron Lk outlet to Windom Dam	07100001-524	AqLife	Turbidity	Approved
Heron Lake Outlet: Heron Lk (32-0057-01) to Des Moines R	07100001-527	AqLife	Turbidity, pH	Approved
Division Creek: Okabena Cr to Heron Lk (32-0057-06)	07100001-529	AqLife	Turbidity	Approved
Des Moines River: Lime Cr to Heron Lk outlet	07100001-533	AqRec AqLife	Fecal Coliform, Turbidity	Approved
Lime Creek: Lime Lk to Des Moines R	07100001-535	AqRec AqLife	Fecal Coliform, Turbidity	Approved
Des Moines River: Jackson Dam to JD 66	07100001-541	AqLife	Turbidity	Approved

Des Moines River: Lk Shetek to Beaver Cr	07100001-545	AqLife	Turbidity	Approved
Des Moines River: Beaver Cr to Lime Cr	07100001-546	AqRec AqLife	Fecal Coliform, Turbidity	Approved
Unnamed creek: String Lk to Des Moines R	07100001-551	AqLife	Turbidity	Required
Okabena Creek: Elk Cr to Division Cr	07100001-602	AqRec AqLife	Fecal Coliform, Turbidity	Approved
Des Moines River: JD 66 to MN/IA border	07100002-501	AqRec AqLife	Fecal Coliform, Turbidity	Approved
Judicial Ditch 56: Unnamed cr to Des Moines R	07100002-505	AqLife	Turbidity	Required
Talcot	17-0060-00	AqRec	Nutrient/Eutrophication Biological Indicators	Required
Flaherty	32-0045-00	AqRec	Nutrient/Eutrophication Biological Indicators	Required
Heron: North Marsh	32-0057-01	AqRec	Nutrient/Eutrophication Biological Indicators	Required
Heron: Duck	32-0057-02	AqRec	Nutrient/Eutrophication Biological Indicators	Required
Heron: North Heron	32-0057-05	AqRec	Nutrient/Eutrophication Biological Indicators	Approved
Heron: South Heron	32-0057-07	AqRec	Nutrient/Eutrophication Biological Indicators	Approved
Yankton	42-0047-00	AqRec	Nutrient/Eutrophication Biological Indicators	Required
First Fulda	51-0021-00	AqRec	Nutrient/Eutrophication Biological Indicators	Required
Lime	51-0024-00	AqRec	Nutrient/Eutrophication Biological Indicators	Required
Bloody	51-0040-00	AqRec	Nutrient/Eutrophication Biological Indicators	Required
Shetek	51-0046-00	AqRec	Nutrient/Eutrophication Biological Indicators	Required
Sarah	51-0063-00	AqRec	Nutrient/Eutrophication Biological Indicators	Required
Currant	51-0082-00	AqRec	Nutrient/Eutrophication Biological Indicators	Required
East Graham	53-0020-00	AqRec	Nutrient/Eutrophication Biological Indicators	Required
West Graham	53-0021-00	AqRec	Nutrient/Eutrophication Biological Indicators	Required

3. Goal, Objective, Tasks, and Subtasks

***Goal:** The primary goal of this project is to develop a comprehensive Watershed Restoration and Protection Strategies (WRAPS) Report to be used on the local level. Achieving this goal will require sound working relationships between local government units (LGUs), watershed citizens, and state government. Gathering input from these groups will be critical in drafting a WRAPS report that can be utilized by local decision-makers.

Objective 1: WRAPS Development

Task A: Community Outreach

Sub-Task 1: Local Work Group (LWG)

- Convene seven county and Soil and Water Conservation District (SWCD) staff, Watershed Coordinator, Watershed Technician, and District Administrator on a semi-annual basis or as needed.
- Provide Local Work Group with information about existing tools such as Zonation, Hydrologic Simulation Program Fortran (HSPF), Geographic Information Systems (GIS) maps.
- Use information obtained from tools and public information meetings to develop priority areas and restoration/protection strategies in cooperation with Citizen Council.
- Attend Local Work Group sessions.

Responsible Parties: Watershed Coordinator, HLWD Staff, SWCDs, County Staff

Sub-Task 2: Citizen Council

- Citizen Council Identification: Identify individuals in the watershed to serve as the Citizen Council. Invitee list will be co-created between University of Minnesota (UM) Extension/Leadership and Civic Engagement, HLWD staff, and selected others knowledgeable on spheres of influence and network relationships within the watershed.
- Citizen Council Team Building: UM Extension/Leadership and Civic Engagement will provide coaching to HLWD, consultation to Citizen Council on work team development, network mapping, and asset mapping.

- Citizen Council Civic Capacity Building: UM Extension/Leadership and Civic Engagement will be responsible for training Citizen Council to co-convene three different watershed update sessions.
- Evaluation: For program components delivered by UM Extension/Leadership and Civic Engagement, evaluation and synthesis of the evaluation will be designed and administered.
- Provide council members with information about existing tools such as Zonation, HSPF, GIS maps, or others identified by the Local Work Group.
- Use information obtained from tools and public information meetings to develop priority areas and restoration/protection strategies in cooperation with the Local Work Group.
- Attend Citizen Council Identification, Citizen Council Team Building, and Citizen Council Civic Capacity Building sessions.

Responsible Parties: Watershed Coordinator, HLWD Staff, SWCDs, County Staff, UM Extension/Leadership and Civic Engagement

Sub-Task 3: Public Participation and Education

- Shared Leadership: Two sessions facilitated by UM Extension/Leadership and Civic Engagement would provide for relationships to develop/strengthen for shared leadership and network building to move the WRAPS project forward.
- Non-point Education for Rural Officials (NERO)/The Watershed Game: This workshop would provide education related to watershed dynamics, existing conditions, TMDLs, BMPs for rural areas and small cities, and ecosystem services for healthy watersheds. The Watershed Game, an interactive educational tool, would be used to help participants understand the connection between land use practices and water quality. These sessions would be facilitated by UM Extension Watershed Education Program (WEP) staff.
- Educational sessions: Conduct two educational sessions, workshops, or tours based upon needs identified by the Local Work Group. These sessions would be facilitated by UM Extension WEP staff.
- Evaluation: For program components delivered by UM Extension/Leadership and Civic Engagement, evaluation and synthesis of the evaluation will be designed and administered.
- Attend Shared Leadership, NERO/The Watershed Game, and educational sessions.

Responsible Parties: Watershed Coordinator, HLWD Staff, SWCDs, County Staff, UM Extension/Leadership and Civic Engagement, UM Extension WEP

Sub-Task 4: Mileage

- Watershed Coordinator travel for tasks identified in Task A.

Responsible Party: Watershed Coordinator

Task A Timeline: January 2015 – June 2018

Task A Deliverables: Local Work Group and Citizen Council, watershed update sessions, priority areas and restoration/protection strategies, workshops, education sessions, and/or tours

Task B: Information Analysis

Sub-Task 1: Data Collection

- Inventories conducted may include, but are not limited to buffer, septic, gully/ravine, terraces, wetlands, grassed waterways, side inlets, streambank, stream visual assessment protocol, and pastures (active, inactive, and loss) as identified by Local Work Group.
- Inventories will be conducted by the Watershed Coordinator with assistance from county and SWCD staff.
- Compile inventory results for use in determining priority areas.

Responsible Parties: Watershed Coordinator, SWCDs, County Staff

Sub-Task 2: Mileage

- Watershed Coordinator travel for tasks identified in Task B.

Responsible Party: Watershed Coordinator

Task B Timeline: January 2015 – June 2018

Task B Deliverables: Inventory results

Task C: Project Coordination

Sub-Task 1: Project Management

- Complete and submit reports in accordance with work plan requirements.
- Complete and submit reimbursement requests in accordance with work plan requirements.
- Provide training opportunities for Watershed Coordinator. Reimbursement for training registration, lodging, and meals will be covered through this funding mechanism.
- Meet with East Fork Des Moines River staff on a semi-annual basis, or as needed, to communicate project progress and foster partnering efforts.
- Assure work plan requirements are met.

Responsible Party: HLWD Administrator, Watershed Coordinator

Sub-Task 2: Assist MPCA

- Biological monitoring – contribute to the bio monitoring process by taking part in data collection.

- Stressor identification – assist stressor identification crew with data collection; collect additional water chemistry data, pictures, field data, and perform stream recon work.
- Participate in MPCA meetings on an annual basis; provide input to MPCA.

Responsible Party: Watershed Coordinator

Sub-Task 3: Mileage

- Watershed Coordinator travel for tasks identified in Task C.

Responsible Party: Watershed Coordinator

Task C Timeline: January 2015 – June 2018

Task C Deliverables: Reports and reimbursement requests, data collection, provide input and participate

4. Measurable Outcomes

Community outreach programs will be measured using:

- Increasing number of citizens participating in education and outreach events.
- Fostering information and idea exchange around watershed issues through relationships and social networks.
- Involving community members in crafting civic engagement activities/plans in which they feel ownership and an obligation to implement.
- Promoting awareness, concern, and watershed stewardship to community organizations/institutions.

Outcomes will be: defined roles and responsibilities for the LWG and Citizen Council; a LWG that provides leadership and connects with the Citizen Council; a Citizen Council that helps guide the watershed project and related work based upon local values and needs; project partners, elected officials, and the public that are engaged and informed and develop a sense of personal responsibility for water resources problems and solutions; and a local civic infrastructure and leadership for promoting watershed management strategies.

An additional outcome of this project will be a set of complete watershed management strategies to address restoration of impaired water and protection of un-impaired waters. These watershed management strategies will also include detailed descriptions of priority work areas and the practices that will benefit specific impairments. Upon completion, MPCA technical staff and local partners will have an adequate understanding of the watershed to select and prioritize strategies to move forward with water resource protection and restoration activities.

5. Gantt charts (*Attached Excel spreadsheet*)

6. Project Budget (*Attached Excel Spreadsheet*)

West Fork Des Moines River Watershed
Civic Engagement and Education Proposal

1. Citizen Council Identification

Civic Engagement/Leadership

Description: Identify individuals in the watershed to serve as the Citizen Council. Invitee list would be co-created between UM Extension/Leadership and Civic Engagement, HLWD staff and selected others knowledgeable on spheres of influence and network relationships within the watershed.

Audience: UM Extension, HLWD staff, and selected individuals

Length: 3 hours

Cost- \$336.00

2. Citizen Council Team Building

Civic engagement/Leadership

Description: The Citizen Council's role is to be a liaison between watershed residents and organizations working on water quality by providing peer-to-peer engagement. UM Extension/Leadership and Civic Engagement will provide coaching to HLWD, consultation to Citizen Council on work team development, network mapping, and asset mapping.

Audience: Citizen Council

Length: 15 hours

Cost - \$1,706.00

3. Citizen Council Civic Capacity Building

Civic Engagement/Leadership

Description: UM Extension /Leadership and Civic Engagement would be responsible for training Citizen Council to co-convene three different Watershed Update sessions or citizen conversations. Sessions may be held in multiple locations. The sessions/conversations would be designed to provide citizens a role in influencing the direction of watershed work. These sessions/conversations will be held at key times to share progress on field monitoring, stressor identification, TMDL study status, and implementation strategies. This will serve to not only keep local stakeholders informed of pertinent watershed data and provide an opportunity for stakeholders/citizens to serve in a consultant role in their watershed. Appropriate civic engagement events will be designed and convened dependent upon the intended purpose and identified outcomes of each event. Format will incorporate presentation of relevant data, process for dialogue on the data, and deliberation for future steps. Dependent on audience needs, the format may include site visits. UM Extension/Leadership and Civic Engagement will attend three citizen sessions in a coaching role.

Audience: watershed stakeholders

Length: 50 hours

Cost - \$8,400: \$2,800 each x 3 sessions

For each of the meetings/trainings/workshops/Leadership and Civic Engagement staff would coach Citizen Council to provide leadership for:

- Developing promotional materials,
- Developing a list of invited participants,
- Developing an agenda and other handouts,
- Procuring a facility and necessary equipment
- Seeking sponsorship/underwriting to provide refreshments and/or a catered light dinner,
- Identifying and arranging for external expert speakers as appropriate,
- Develop a mechanism for sharing information generated at sessions
- Develop next steps with HLWD and Citizen Council

Extension/Leadership and Civic Engagement would be solely responsible for:

- Transcribing session notes
- Gathering and synthesizing feedback from participants and share it with HLWD

4. Non-point Education for Rural Officials (NERO)/The Watershed Game (Water Education)

Description: Conduct NERO/Watershed Game sessions. Based on the geography of the watershed, we recommend offering at least two of these in different locations. These workshops, which would be tailored specifically to the WFDNR would provide education related to watershed dynamics, existing conditions, TMDLs, BMPs for rural areas and small cities, and ecosystem services for healthy watersheds. The Watershed Game, an interactive educational tool, would be used to help participants understand the connection between land use practices and water quality.

Audience: Local leaders and decision makers (up to 25 participants)

Length: 3-4 hours

Cost - \$1,500: \$1,500 x 1 session

5. Educational sessions

Civic Engagement/Leadership

Description: Shared leadership to create cultural change in the norm of how things are done and working together. Two sessions would provide for relationships to develop/strengthen for shared leadership and network building to move the WRAPS project forward.

Audience: county commissioners, LGU staff and board, citizens, government agency staff

Length: 3-4 hours

Cost - \$2,600: \$1,300 x 2 events

Water Education

Description: Conduct educational sessions, workshops, and tours based upon needs identified in the issue identification meeting. Examples include ag/urban gatherings to address misconceptions and identify common goals; on-the-water tours for local leaders to discuss land use/water quality interactions; septic system maintenance workshops for rural homeowners; workshops and/or tours on conservation farming practices; streamside workshops to learn about stream processes and functions; workshops on nitrogen and phosphorus sources and BMPs; shoreland buffer workshops.

Audience: watershed stakeholders

Length: depends on selected topics and needs

Cost - \$3,000: \$1,500 x 2 events

6. Evaluation

Civic Engagement/Leadership

For program components delivered by Extension/Leadership and Civic Engagement, evaluation and synthesis of the evaluation will be designed and administered.

Length: 10-12 hours

Cost - Inkind



Minnesota Pollution Control Agency

520 Lafayette Road North
St. Paul, MN 55155-4194

Attachment A
Project Budget

Doc Type: Contract

Project title: West Fork Des Moines River Major Watershed Project - Phase 2

MPCA Use Only	
Swift #:	
CR #:	

	1. Personnel		2. Subcontracting: U of M Extension					3. Other Expenses		Total Cost per Objective
	Watershed Coordinator	HLWD Administrator	Coaching Rate	Teaching Rate	Preparation Rate	Travel	Supplies	Mileage	Training	
Project Budget										
\$ Rate per Hour/Unit	\$27.00	\$35.00	\$90.00	\$125.00	\$50.00			Commissioner's Plan Rate	\$ 500.00	
Objective 1										
Task A										\$100,221.00
Sub-Task 1	1365									\$36,855.00
Sub-Task 2	1322		37	20	32	\$1,998.00	\$1,014.00			\$46,136.00
Sub-Task 3	230		3	27	10	\$2,168.00	\$787.00			\$13,310.00
Sub-Task 4								\$3,920.00		\$3,920.00
Task B										\$54,619.00
Sub-Task 1	1857									\$50,139.00
Sub-Task 2								\$4,480.00		\$4,480.00
Task C										\$20,160.00
Sub-Task 1	145	94							6	\$10,205.00
Sub-Task 2	265									\$7,155.00
Sub-Task 3								\$2,800.00		\$2,800.00
Objective 1 Unit Totals	5184	94	40	47	42				6	
Total for Objective 1 \$	\$139,968.00	\$3,290.00	\$3,600.00	\$5,875.00	\$2,100.00	\$4,166.00	\$1,801.00	\$11,200.00	\$3,000.00	\$175,000.00
Total Project Hours	5407									
Total FTEs	2.59									
Total Budget:	\$139,968.00	\$3,290.00	\$3,600.00	\$5,875.00	\$2,100.00	\$4,166.00	\$1,801.00	\$11,200.00	\$3,000.00	\$175,000.00



Minnesota Pollution Control Agency

520 Lafayette Road North
St. Paul, MN 55155-4194

**Attachment A
Gantt Chart**

Doc Type: Contract

Project title: West Fork Des Moines River Watershed Project - Phase 2
[No more than 10 words, 50 characters or less] [For watershed program work, use watershed name and project type (e.g., Snake River Watershed)]

MPCA Use Only	
SWIFT #	
CR #	

	Year 2015												Year 2016												Year 2017												Year 2018											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J						
Objective 1																																																
Task A																																																
Sub-Task 1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
Sub-Task 2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
Sub-Task 3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
Sub-Task 4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
Task A Deliverables Due																																																
Local Work Group and Citizen Council, watershed update sessions, priority areas and restoration/protection strategies, workshops, education sessions, and/or tours																																																
Task B																																																
Sub-Task 1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
Sub-Task 2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
Task B Deliverables Due																																																
Inventory results																																																
Task C																																																
Sub-Task 1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
Sub-Task 2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
Sub-Task 3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
Task C Deliverables Due																																																
Reports and reimbursement requests, data collection, provide input and participate																																																