**West Fork Des Moines River Watershed**
**Total Maximum Daily Load Implementation Project**
**Semi-Annual Meeting**
**Thursday, May 2, 2013 – 10:00am**

1. **Welcome and Introductions**
   Kiel Tschumperlin, Heron Lake Watershed District (HLWD) opened the meeting at 10:05 am. Attendees introduced themselves and their respective organizations. In attendance were Brian Nyborg and Jake Grages, Jackson Soil and Water Conservation District (SWCD); Al Langseth and Kathy Henderschiedt, Nobles County; Katherine Pekarek-Scott, Minnesota Pollution Control Agency (MPCA); Tom Kresko and Brooke Hacker, Department of Natural Resources (DNR); Karen Boysen, Jackson County Natural Resources Conservation Service (NRCS); Lloyd Kalfs, Cottonwood SWCD; Matt Drewitz and Mark Hiles, Board of Water and Soil Resources (BWSR); Ed Lenz, Nobles SWCD; Rich Perrine, Martin SWCD; Don Louwagie, Minnesota Soybean Growers Association; Jon Bloemendaal, Murray County; Kelly Heather-Pfarr, Cottonwood County NRCS; and Kiel Tschumperlin, Jan Voit, and Ross Behrends, HLWD.

2. **West Fork Des Moines River (WFDMR) Total Maximum Daily Load (TMDL) Implementation Project PowerPoint Presentation**
   Kiel Tschumperlin, WFDMR Watershed Coordinator, gave a PowerPoint presentation that provided a project update since the last Semi-Annual Meeting, grant background, the role of partners, watershed information, progress to date on the inspection process, and what to expect in the future. A detailed summary of the PowerPoint is given below.

   A quarterly County Feedlot Officer (CFO) Meeting was held on February 7, 2013 at 10:30 am in the HLWD Office. In addition to the four CFOs, Ben Crowell, MPCA, was also present. Topics covered included shoreland definition, enforcement action required by CFOs in the event of a non-compliant feedlot, the usage of best professional judgment when overruling MinnFARM results, animal unit density (AUD) and pollution potential, manure management plans (MMPs), and manure record keeping requirements. Having Ben present was critical because he was available to answer questions regarding all issues. He oversees the CFOs and they need his approval when ruling on certain issues.

   A meeting was held on April 4, 2013 to discuss the manure management workshop that will be taking place on Wednesday, July 31, 2013. Topics discussed at the meeting included the target audience, date, time, location, speakers, funding, and food. It was determined that the workshop would be held at the Heron Lake Community Center. Target audience will be all feedlot operators in the watershed with an emphasis on small producers. Staff feels

small producers are the least informed on proper manure application methods and record keeping requirements.

The WFDMR TMDL Implementation Project was funded through an Environmental Protection Agency (EPA) 319 Grant that is administered by the MPCA. The HLWD is the project sponsor and is responsible for providing office space and equipment for the watershed coordinator. Jan Voit and Kiel Tschumperlin, HLWD, are responsible for reporting to the MPCA. The purpose of the grant is to gather inventory on the feedlots in the watershed, not to enforce noncompliant sites that may be inspected. If a major issue arises, CFOs are responsible for enforcement.

Kiel explained that the project partners are well known, respected organizations that landowners and farmers seek input and direction from in their everyday operations. Project partners also provide credibility to the implementation project. Without their support, the project would stand alone. The more organizations behind it, the more successful it will be. Kiel emphasized the need for the project partners to promote the project to the general public as well as landowners.

Kiel gave an overview of the project. The first goal of the project is to conduct a Level III Feedlot Inventory on 80% of the feedlots in the WFDMR Watershed while strengthening partnerships between the four core counties and the HLWD. The project is a four year endeavor. The project work plan states that there are 742 feedlots in the watershed. Total number of feedlots to be inspected is 592. Emphasis was placed on the principle of continuity throughout the inspection process. Kiel was hired to ensure that each county is doing things in a similar way so the results are consistent across the four counties.

The second goal of the Implementation Project is to increase the knowledge of 50 feedlot operators through a one-day workshop. This will be done in the form of a manure management workshop. Date for the manure management workshop is Wednesday, July 31, 2013. The layout for the workshop will consist of an all presentation format. Target audience is around 100 people. Speakers for the workshop will be Kiel Tschumperlin, HLWD giving background information on the project and explaining to producers the reason for the workshop; Wayne Cords, MPCA speaking on manure record keeping requirements, proper manure sampling techniques, setbacks, and emergency response; Jose Hernandez, University of Minnesota Extension speaking on phosphorous (P) management and manure economics; and Andy Nesseth, Extended Ag speaking about grid sampling and precision ag and its economics. All speakers are secured. It was determined that the Minnesota Corn & Soybean Producers Association would be contacted about sponsorship. The regional representative for the corn producers was contacted. The Corn and Soybean

Producers will donate $500 in support of the workshop. The local Cattlemen's Associations and Pork Producers will be asked to grill. Food will be bought from Hy-Vee. Minnesota Valley Testing Lab in New Ulm and Stearns DHIA in Sauk Centre will be asked to provide manure sampling kits. Kathy Henderschiedt was successful in securing fifty sampling kits from each organization. Manure record keeping forms will also be supplied at the workshop. Local crop consultant firms will be allowed to setup their own booths to advertise. There will be an equal opportunity for all organizations to have a booth at the workshop.

The third goal of the Implementation Project is to increase public awareness of the project by developing a brochure and maintaining a website. Both the brochure and website have been completed. The website will be updated periodically and is an ongoing part of the project. Advisory Committee and Technical Committee (AC and TC) members and organizations were encouraged to take as many brochures and distribute them to as many people as possible. Project partners are also encouraged to view the website.

The fourth goal of the project is to seek input and direction from the AC and TC. Kiel is responsible for providing them with project updates and organizing and hosting semi-annual meetings. The goal of the meetings is to update all partners on the progress of the project, receive input and direction for the project, as well as to remind all parties of their commitment to the project.

Feedlot breakdown by county includes 216 sites in Murray County, 190 in Jackson County, 142 in Nobles County, and 44 in Cottonwood County. There is a direct correlation between the percentage of land each county has in the watershed and the number of feedlots to be inspected in that county.

Kiel explained the process developed for feedlot inspections. It was determined that the Monday prior to the inspection week would be the planning day to determine what sites are going to be inspected. Protocol for Mondays usually involves printing Delta Detailed Reports and giving them to Kiel so he can prepare the customizable feedlot inspection form for the inspection. An aerial image of the site, preferably with LiDAR, is printed so watercourses and feedlot areas can be seen and documented when on site. Roof and buffer areas are also marked on the aerials during the inspection.

A universal producer letter was created. The document is customized for each county and mailed to the producer(s) each Monday with the inspection date and time. If the producer would like to reschedule it is their responsibility to call the office and reschedule a different time and/or date. In some cases, a preliminary drive by of the sites to be inspected is conducted to gather a general overview of the site prior to inspection. This can be useful in observing watercourses near

the feedlot or for determining if the site has livestock. Producer files are also gathered prior to inspections in case a question is raised.

Following each inspection with an open lot, the Minnesota Feedlot Annualized Runoff Model (MinnFARM) program is run. The MinnFARMs are run by Kiel to ensure consistency across the four counties. A MinnFARM assigns each feedlot with an index rating and is recorded into a master feedlot list. It will be used to sort according to index number at the conclusion of the grant. The higher the rating, the higher the pollution potential is for a given feedlot. Feedlots located near surface water, road ditches, or property boundaries tend to have higher indexes because less treatment can occur before the manure leaves the property or enters surface water. In some instances, a MinnFARM is run to simulate what the feedlot operator would have to change in order to be compliant. Some fixes can be as simple as moving a fence, adding buffer, or diverting water away from the feedlot to prevent runoff.

As of April 23, 2013, 161 feedlots have been inspected. This leaves a total of 431 feedlots remaining. The breakdown for the 161 inspected feedlots is as follows: 115 open lots, 30 total confinements or no discharge open lots, and 16 deactivated sites, sites with no lots remaining, or sites with less than 10 animal units (AU) and not in shoreland. Shoreland is defined as less than 1,000 feet from a lake, pond, or public wetland or less than 300 feet from a public drainage ditch, stream, or river. These watercourses can be found on the Public Waters Inventory (PWI) Map.

Of the 145 sites that are active, meaning they have open lots and are not deactivated, 96 are deemed compliant by MinnFARM standards and 49 are non-compliant. The ratio of compliance to non-compliance is roughly 2:1. Of the 145 active sites, 91 have surface water within 1,000 feet. The compliance to non-compliance total on these sites is 54 compliant sites to 37 non-compliant sites. Of the 91 sites with surface water within 1,000 feet, 29 are located in shoreland with 14 sites being compliant and 15 being non-compliant. The average MinnFARM rating for the 29 sites in shoreland is 11.9. Sites in shoreland include total confinement operations. Four of the 14 compliant sites were total confinements. For open lots located in shoreland, there are 10 compliant sites and 15 non-compliant sites. The average MinnFARM index for those 24 sites is 13.8. Total confinements bring down the average because their MinnFARM index, which actually does not exist because there are no open lots, is zero.

The highest index achieved on a MinnFARM in the watershed is 42. Two sites had this index. The second highest index is 40. All of these sites are located in shoreland. The lowest index recorded is zero. All total confinements are zero. Open lots have also scored zero predominantly because of the number of animal units (AUs) on site or their proximity to surface water. The average index across

all feedlots with a MinnFARM is 8.3. This is up from the last meeting when the average MinnFARM index was 6.1.

A major factor that influences a MinnFARM rating is the feedlot's proximity to a lake. There is a dropdown menu on a MinnFARM sheet asking what the "water of concern" is. This dropdown menu has several options to choose from such as drainage ditch with or without a lake, stream/river with or without a lake, sinkhole, tile intake with or without a lake, public wetland, or a non-public wetland. For this project, a system has been developed so that if a feedlot is discharging into a river and there is not a lake within one mile of the discharge point, the stream or drainage ditch "without a lake" tab is selected. This system was agreed upon by Ben Crowell, MPCA; and David Schmidt, University of Minnesota. This is significant because selecting a drainage ditch or stream without a lake versus selecting them with a lake has a large impact on the outcome of the MinnFARM. When a lake is involved, compliance is much harder to achieve because phosphorus output is taken into account where it is not so relevant in determining compliance when a lake is not involved.

Challenges faced throughout the inspection process include: reduced animal numbers and a reduction in the total number of feedlots because of the high commodity prices. Lower livestock numbers are also a result of the high commodity prices. Another factor that has made the inspection process increasingly difficult is the unseasonably dry summer and fall of 2012. Feedlots appeared to have very little pollution potential because they were so dry. MinnFARM does an excellent job of telling what the pollution potential of the site is even when it may look good at the time of inspection. This spring has been a great time to inspect because it has been much wetter and easier to see runoff problems.

When non-compliant feedlots are found, they are ranked according to pollution potential. The objective of the MinnFARM index is to rank each site in hopes of achieving cost share to fix the highest priority sites. Applying for grants in the future to implement fixes is a main objective and priority of the Implementation Project. Partial fixes will be pursued if landowners are willing. We have found that most producers don't want to do a total fix. They are more open to the idea of cleaning up the major problems and not having to capture runoff leaving a lot that is a minimal concern. Mark Hiles commented that there might be potential changes/restrictions on allocation of Clean Water Legacy (CWL) funds. Changes may limit the number of producers that are eligible due to animal unit (AU) restrictions. Producers will be eligible based on the number of AU they are registered for at the time of application. Last year, all feedlot projects funded were in shoreland and had a MinnFARM index of at least 40.

The manure management workshop for the WFDMR TMDL Implementation Project will be held on Wednesday, July 31, 2013 at 10:00 am at the Heron Lake Community Center.

**3. Questions**

Matt Drewitz asked if any software other than MinnFARM has been used to address pollution potential or for MMPs. We have not been using any other software besides MinnFARM. P index model could be used for addressing pollution in the field. MPCA record keeping forms are distributed to producers as needed as well.

Brian Nyborg asked about the progress on a county-by-county basis. He specifically asked how many feedlots inspections are left in Jackson County. There are around 150 feedlots left to be inspected in Jackson County under the TMDL Implementation Project. Ed Lenz asked if the feedlot results could be distributed to the SWCDs so they can better plan for fixes and are more informed of what Kiel and the CFO are finding during inspections. SWCDs will be contacted directly or with a list.

Discussion was held regarding CWL funds to fix feedlots. There are currently different proposals in the legislature that could have a large impact on feedlot funding. The last two years there has been about two million dollars for fixes. Request for proposals have far exceeded the amount of available funds in each of those years. There is also talk of reducing the eligible AU from 500 to 300 AU. This may pose a few challenges because the number of feedlots below 300 AU is decreasing. There are multiple bills in the legislature for the Clean Water Fund (CWF). The Governor and Senate versions allocate ten million dollars more than what is currently allocated. The House version proposes twenty one million dollars less than the Governor's and Clean Water Council's recommendations.

Tom Kresko asked about the funding mechanism for Southwest Prairie Joint Powers Organization (JPO). Matt Drewitz and Mark Hiles said the base grant for those types of organizations is proposed to remain stable. The House of Representatives is playing with the funding a little bit on this issue.

Kiel asked a question regarding MinnFARM index and how important it is in determining if a feedlot project gets funded. He was wondering if it is the only factor taken into account when determining funding, or if the index can be low but the site actually has a high probability of polluting. Kiel was wondering about priority for unpermitted basins even if the MinnFARM index was low. MinnFARM index would most likely be low on these sites because they are located a half mile or more from surface water. Matt Drewitz said the scoring for feedlots may be changed this year. A lot of emphasis has been placed on sites in shoreland in the past. All sites that received funding last year were in shoreland. This year,

there may be a shift to focus more on sites with a direct hydrologic connection to a river, stream, lake, or groundwater. An example of this would be a site that flows to an intermittent stream, a low priority, but the intermittent stream leads directly to a river, stream, or lake. A site like this would have a low MinnFARM index because of the site's distance to surface water, but if the drainage ditch or intermittent stream is carrying all the runoff to the nearest major waterway without filtering it properly, the MinnFARM index does not adequately represent the amount of nutrients entering the water. Drinking Water Supply Management Areas (DWSMAs) will also be higher priorities if BWSR is required to change their scoring system.

Ed Lenz explained that there are also federal programs to fix feedlots. Environmental Quality Incentives Program (EQIP) is a federal program. No partial fixes are allowed with EQIP funding, only total fixes. Everything must be contained, meaning everything must be under roof. Open lots are permitted but must have catchment basins that don't allow any runoff to leave the site. Producers must have a Conservation Activity Plan (CAP) before signing up for EQIP. The CAP is a precursor to the EQIP contract. Ed also noted that the producer would have to work with a private engineer, not JPO.

The issue of what was considered a partial fix was raised. Concern was expressed that it was not a wise use of time and resources to do a 10 to 20 percent fix. Fixes should be addressing 85 to 95 percent of loading for any given site. It was determined that partial fixes will address at least 75% of the pollutant loading. Most will involve construction of a basin, manure stacking slab, or extensive grass filtration system that requires proper management to maintain functionality. Mark Hiles commented that sites are required to be in compliance after fixes are complete. BWSR will not pay for partial fixes that result in non-compliance. MinnFARM would be run with the proposed fixes to confirm compliance.

4. **Adjourn**

The meeting adjourned at 10:45 am.