

Chippewa County Groundwater Study Project
Stakeholders Group Meeting
February 26, 2013

The meeting was called to order by the D. Masterpole (LCFM), at approximately 1:00 p.m. Stakeholders present were as follows:

Industry

J. Clements, Superior Silica Sands
S. Courter, EOG Resources
B. Kelly, Taylor Creek Transit
A. Lierman, Preferred Sands
A. Russell, Western WI Sand
S. Schimmel, Chippewa Sand Co.
B. Servais, Mathy Constr.
E. Strang, Chippewa Sand Co.
J. Thompson, Western WI Sand
A. Travis, Western WI Sand

Agriculture

M. Dietsche
D. Fehr
S. Hilger

Non-Profit

R. Diesch, T.U.
B. Swanson, T.U.

Citizen

R. Koshoshek

State and Federal agency members present were J. Clark (UWEX), T. Woletz (DNR), M. Gotkowitz and M. Parsen (WGNHS), M. Fienen and P. Juckem (USGS)

County agency staff present at times throughout the meeting were S. Ebel, D. Masterpole, and D. Nashold (LCFM).

County Board members present were R. Kressin.

Item #1 – Introductions.

D. Masterpole welcomed the group.

Those present introduced themselves and their role and interest in the project.

D. Masterpole provided a brief overview that summarized:

1. The general purpose of the project study.
2. The history of the project and commitments made by the participating industry stakeholders to instrument sites and to collect and share data as needed to conduct the project.

Item #2 – Brief Review of Role and Responsibilities of the Stakeholders Group.

D. Masterpole briefly reviewed the purpose of the group and their duties and responsibilities as outlined in Appendix 1 of the project proposal.

Duties and Responsibilities

The Project Stakeholders Group will:

1. Assure structured communication between the public agencies, who are conducting the study, and stakeholder interests who are participating in the study.
2. Serve as representatives and express the interests of their respective public and private sector organizations.
3. Actively participate in project meetings and pursue opportunities to collaborate on project tasks related to the technical investigation and outreach components of the modeling study.
4. Systematically review project status and provide feedback to support the successful completion of project tasks related to the technical investigation and outreach components of the modeling study.

Specific duties and assigned tasks are as follows:

1. Participate in annual project review and planning meetings conducted by the County to track progress, solicit feedback, and seek input on planned project tasks.
2. Assist in the dissemination of information generated through the project.
3. Provide input to and confirm the validity of data used in the technical investigation and modeling efforts (SWB and MODFLOW).
4. Provide input regarding the conditions (i.e. landscape and pumping) representing the current and two future scenarios (i.e. approximately 2030 and 2050) to be evaluated through model runs.
5. Review and provide comments on periodic status reports prepared by Chippewa County LCFM.
6. Review and provide comments on working draft(s) of the interim project report (2014-2015), and final project report (2016-2017).

Item #3 – Brief Review of Project Proposal.

M. Parsen (WGNHS) introduced a Power Point report titled: Chippewa County Groundwater Study – Stakeholders Group Meeting, Chippewa Falls, WI 2/26/13, (2/26/13 – copy on file). It was noted that the Power Point report had been structured to coincide with the meeting agenda, and would be used by WGNHS and USGS staff to present information prepared for the meeting.

The structure of the WGNHS/USGS Power Point report is as follows:

- ***Brief review of project proposal (WGNHS)***
- ***Progress to date (WGNHS/USGS/Chippewa Co.)***
- ***What's next? (WGNHS)***

Brief Review of Project Proposal (WGNHS)

M. Parsen (WGNHS) presented information and supporting graphics contained in the Power Point report. An outline of subject matter and core content is as follows:

Objectives

1. Develop soil water balance (recharge) and groundwater flow models to evaluate current and future water use and landscapes on the hydrologic system.
2. Disseminate the study results to stakeholders and the general public.
3. Transfer the study results to similar geologic/hydrologic settings as appropriate.

Limitations

1. Model solution is valid only within the area of focus.
2. Steady state model (not transient).

Technical investigation & modeling

1. Data collection - working on this now.
2. Recharge modeling (SWB model) – starting in next couple weeks.
3. Groundwater modeling – 2014-2016.
4. Scenario testing – 2016.
5. Transferability – 2016.
6. Public outreach and reporting.
 - Fact Sheet – Just published by WGNHS.
 - Public outreach and stakeholders meetings.
 - Interim and final reporting.

There was general discussion. Discussion focused on:

1. The location and physical characteristics of the study area.
2. The structure and utility of the groundwater flow model (MODFLOW).
3. The purpose and utility of the Soil Water Balance Model (SWB).
4. The importance of developing reliable estimates of soil infiltration and groundwater recharge rates at active and reclaimed mine sites.

Item #4 – Progress to Date (WGNHS & USGS)

P. Juckem and M. Fienen (USGS) presented information and supporting graphics, as contained in the Power Point report. An outline of subject matter and core content is as follows:

Progress to Date (WGNHS & USGS)

1. Streamgaging.
 - Streamflow measurements.
2. Streamflow to inform modeling.
3. Recharge varies across Wisconsin.
 - Changes in baseflow can reflect changes in geology.
 - Streams often gain or lose water as they flow over geologic contacts.
4. Synoptic streamflow measurements.
 - High spatial resolution.
 - Adjust one-time measurements to “normal” using regression methods.
5. Maps/Regional datasets.
 - Bedrock geology (WGNHS).
 - Glacial geology (WGNHS).
 - Land cover dataset (USGS).
 - Soils dataset (USDA).
 - Well construction reports (DNR).
 - Geologic logs (WGNHS).
 - Rock cores (commonly collected for mineral exploration).
 - Geophysical logs (WGNHS & well exploration companies).
 - Field outcrops.
6. Technical Investigation
 - Data collection.
 - DEM - data used for calculating elevations of features.
 - -Surface water features – water feature locations used for routing rivers and creeks in the groundwater flow model.
 - -LiDAR – data used for calculating elevations of features. May allow for topographic comparison before and after mine reclamation. Aids with geologic interpretations.
 - Mine specific data collected by Chippewa Co. LCFM.

-Preliminary interpretations

- Using geologic logs, geophysical logs, and outcrops.
- General dip and location of bedrock units.
- Presence of aquifer and aquitard units.

There was general discussion. Discussion focused on:

1. The type and extent of geologic and hydrologic data available to build and calibrate the models.
2. The general schedule and sequence of actions that will be used to systematically collect data, develop the models, and share results.
3. The streamflow data collected to date and the methods that will be used to process the data and apply it in the modeling effort.
4. The site specific groundwater elevation data collected to date by each participating mine operator.
5. The technical aspects of model development and calibration.

Item #5 – What’s Next?

M. Parsen (WGNHS) presented information and supporting graphics, as contained in the Power Point report. An outline of subject matter and core content is as follows:

What’s next?

1. Soil-water balance modeling (recharge).
2. Continue data collection, processing, and interpretation.
 - GP logs, geologic logs, and rock core (WGNHS to collect directly).
 - Pump test data, water levels (Chippewa Co. LCFM to collect).
3. WGNHS visiting several mine sites this week.
4. Seeking cooperation to obtain geologic logs, geophysical logs, rock cores (e.g. donated core, photos) from mining companies.
5. Upcoming meetings and deliverables.
 - Public meeting (2/26/13).
 - Next meetings (2014 annual update).
 - Stakeholders meeting - QI 2014
 - General public meeting – QI 2014
 - Deliverables.
 - Interim report - QI 2014 (data collection and SWB modeling results).
 - Final report – QI 2017 (final model, scenarios, transferability results).
2. Mechanics of SWB Model.
 - GIS layers are gridded (DEM, Soil hydrologic group, soil available water storage, land use).
 - SWB equation applied to cell (Recharge = Precipitation – Evapotranspiration – Soil Storage - Runoff).
 - Excess water (runoff) moved to next down gradient cell and SWB equation applied again.
 - Repeat until all runoff is moved to surface water or out of model.

There was general discussion. Discussion focused on:

1. The public outreach component of the project.
2. The fact sheet that has been prepared to explain the project.

Item #6 – Other Agenda Items to Include?

There were no other agenda items to include.

Item #7 - Public Wishing to be Heard.

No public comments were received.

The meeting was adjourned at approximately 4:00 p.m.

As per the project schedule, the next meeting will be held during the 1st quarter of 2014. A notice of meeting date will be forwarded in December, 2013, to allow for scheduling.