Project Update: Bonanza Valley Public Meetings Reviewed Draft Groundwater Plan

Project Background:
The Minnesota Department of Natural Resources (DNR) is establishing a Groundwater Management Area (GWMA) in the Bonanza Valley area in central Minnesota, to ensure sustainable use of groundwater. The DNR formed a Project Advisory Team to advise the development of a plan. The purpose of the plan is to guide DNR actions in managing the appropriation and use of groundwater within the Groundwater Management Area over the next five years.

Presentation Topics:
Attendees at public input meetings in August heard that statewide groundwater use has increased 35 percent over the past 25 years, resulting in an increased risk of overuse and contamination of groundwater. Municipal water supplies and cropland irrigation led the increases in water use statewide.

Use of groundwater in Bonanza Valley has increased approximately 175 percent over the same 25-year period. DNR staff said the increased use has resulted in a downward trend in summer low water levels in Bonanza Valley buried aquifers. Nitrate contamination levels in monitoring wells is on an upward trend in the Bonanza Valley. Shallow water table aquifers commonly contribute water to rivers, lakes and wetlands in the Bonanza Valley, carrying with it any dissolved contaminants including nitrate.

As described by Minnesota laws, groundwater use should not harm ecosystems, water quality or the ability of future generations to meet their own needs. This supports the common sense notion that, although we need to use groundwater, we also need to protect it. DNR staff reviewed portions of section five of the Draft Bonanza Valley GWMA plan. This section outlines what the DNR is planning to do over the five-year lifespan of the plan.

Question and Discussion Topics:
A question and answer period followed the presentation of information at the public meetings. Here is a sample of what attendees asked, with answers provided by DNR staff:

Q: How does nitrate contamination move and what are the associated health risks?
A: Nitrates move with groundwater. Changes in the flow of groundwater happen when pumping large amounts of water from a well. This can pull contamination to deeper parts of the aquifer or cause it to change direction. The Minnesota Department of Health sets the health risk limit for nitrate. Risks are higher for infants younger than six months of age and pregnant mothers. Nitrates in drinking water can induce a condition called Blue Baby Syndrome. Nitrates in wetlands, rivers and lakes can affect aquatic life including fish and the insects they feed on.

Q: What is the relationship between drinking water wells and irrigation wells?
A: Other types of wells must not interfere with the availability of water in drinking water wells, as this is the highest priority use of groundwater in Minnesota. If it is determined that the non-drinking water well is drawing water away from the drinking water well, it is the responsibility of the owner of the non-drinking water well to ensure a supply of drinking water to the drinking water well owner. This is only true when drilling a non-drinking water well after the drinking water well.

Q: Why should I pay for ongoing costs for a monitoring well as a part of my permit application if others also benefit from the information gathered?
A: The state of Minnesota owns and operates more than 849 DNR observation wells. Continuing state investments will grow this network. In addition to this DNR Observation Well Network, individual permit applicants will sometimes be required to install wells to measure the impact of an individual well on aquifers. The DNR proposed legislation that would have the state pay for the cost of observation wells. Such a measure has not passed.

Q: How will sustainability thresholds be determined for the Bonanza Valley?
A: The DNR and other stakeholders will develop recommendations in a report to the legislature. The report will identify thresholds for negative impacts to surface waters. The report is due Dec. 15. This and other thresholds will define sustainable water use in the Bonanza Valley and across the state.

Q: What options are available for people to reduce their water use?
A: Municipal water suppliers are required to meet standards for efficiency. These steps include limiting water leaks in the distribution system and setting conservation rates to encourage the use of less water. Homeowners may install water-conserving fixtures, keep water fixtures in good repair, and only water lawns when needed. Cropland irrigators can use free management tools that will reduce the likelihood of applying more water than the crop needs. Cropland irrigators can also install equipment that directs more water to the crop by reducing evaporation, and directs water to the places in the field that need it most.

Q: What happens to the draft plan?
A: DNR Commissioner Tom Landwehr will meet with the Bonanza Valley Project Advisory Team and receive input on the draft plan. The draft plan will be delivered to the commissioner for his further consideration. If the plan is approved, a new advisory team will be formed. One of their duties would be to help people follow the implementation process.

The public comment period was open between July 26 and Aug. 31. The DNR held public input meetings in August in Glenwood, Paynesville and Belgrade.

Final Project Advisory Team Meeting
The Bonanza Valley Project Advisory Committee will meet for the final time from 1:00 to 4:00, Mon. Nov. 16, at the American Legion Club, 770 W State Highway 23 in Paynesville. Commissioner Landwehr will attend the meeting to talk with the Project Advisory Team and the public regarding the draft Bonanza Valley GWMA Plan.

Contact Information
Direct questions about this project to Mark Hauck, DNR project manager, at 320-223-7846 or BonanzaValleyGWMA.dnr@state.mn.us. For more information on all Groundwater Management Areas, visit www.mndnr.gov/gwmp/index.html.

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