



Resolution 24-04

Resolution type: Policy Statement

Resolution for Managed Aquifer Recharge Potential in Montana

Submitted by: Richland County Conservation District

Passed at Area 2 Meeting 10/2/2024

1. BACKGROUND DESCRIBING ISSUE *

The potential of aquifers in Montana is limited by the availability of recharge, the water that feeds into the aquifer. Recharge to most aquifers comes directly from precipitation or from stream loss in alluvial systems. Managed Aquifer Recharge (MAR) is the concept of artificially supplementing recharge sources to store water and increase aquifer potential. Agricultural irrigation projects have been doing this since the construction of canal systems. Recharge to some aquifers such those in West Billings is totally dependent on irrigation recharge. More recently, MAR is being used to store water in aquifers not already supplemented by irrigation. For MAR to work, the aquifers must have potential for storage, and there needs to be a source of excess water. One example would be diverting flood water into retention ponds to increase infiltration and decrease flood damage. Managed Aquifer Recharge has been identified by the State Drought Management plan and in the State Water Plan.

2. SPONSOR(S) ACTIONS TO DATE *

We have been in discussion with DNRC Water Resources, Montana Bureau of Mines, and Geology on Managed Aquifer Recharge areas. As part of the West Crane Aquifer management plan, hydrologists have discussed MAR as a possibility for this area. Several geological attributes suggest the area to have potential for a MAR. As part of the discussion we became aware of several policies and rules concerning water rights and use of gravel pits for

conducting test projects. Administrative rules for DEQ and DNRC Water Resources will need to be changed to allow for test projects to investigate the potential for Managed Aquifer Recharge in Montana.

3. ACTUAL POLICY STATEMENT TO BE INCLUDED IN MACD POLICY BOOK IF ADOPTED *

The Montana Association of Conservation Districts should work with DNRC-Water Resources, Montana Department of Environmental Quality and other state agencies along with Montana Bureau of Mines and Geology to begin exploring the concept of Managed Aquifer Recharge in areas of Montana identified as having the potential to store water in aquifers.

4. HOW WILL YOUR DISTRICT CONTINUE TO SUPPORT AND BE INVOLVED WITH THIS POLICY STATEMENT/STANCE? *

Richland County Conservation District is very interested in MAR and how it could be used with in the West Crane Aquifer and throughout the state to help address possible drought impacts. Currently the Conservation District is monitoring the West Crane Aquifer that is being used to irrigate over 3000 acres of new irrigation. The investment landowners have made to irrigate out of this aquifer makes it necessary to protect the aquifer from overuse and to investigate the potential of Managed Aquifer Recharge in times of drought. Managed Aquifer Recharge is identified in the State Drought Plan and Water Plan.

5. ARE THERE ANY EXISTING MACD POLICIES THAT THIS WOULD IMPACT OR INTERACT WITH? *

Not that we are aware of

6. HOW WOULD THIS POLICY IMPACT MACD? *

Currently it would involve staff time working with partners to work through the legalities to enable conservation districts to test areas identified as potential MAR projects. Supporting partners will also bring a stronger voice to the idea. Education is a key to the success of implementing new ideas and concepts. In the future, with possible legislative changes CD's can be supportive of the efforts of our partners.

7. WOULD THIS POLICY STATEMENT IMPACT THE STATE OF MONTANA BUDGET? IF SO, HOW? *

Funding would be needed for research, pilot projects and modeling projects

8. MEETING AND DATE ADOPTED BY SPONSORING ENTITY

August 8th, 2024

AUTHORIZED SIGNATURE(S) AND TITLE(S) *

Shawn Conradsen, Chairman