

2018 Annual Report
Powder River Basin Controlled Groundwater Area
Technical Advisory Committee

Introduction

The Powder River Basin Controlled Groundwater Area (PRBCGA) was established to protect existing water users from impacts resulting from coal bed methane (CBM) development. The Montana Board of Oil and Gas Conservation (MBOGC) implements the PRBCGA through regulations that require characterization, monitoring, and evaluation of ground-water conditions, and mitigation of impacts to existing water users.

A technical advisory committee (TAC) was established to oversee the ground-water characterization, monitoring, and evaluation requirements of the PRBCGA. TAC consists of five members selected by DNRC for their expertise in hydrogeology, water quality, and CBM extraction systems and operations. Two additional ex-officio members represent the CBM industry, and water user and conservation interests. In addition to overseeing monitoring and reporting requirements for individual fields, TAC is assigned to review groundwater data and scientific evidence related to the PRBCGA and make recommendations to the MBOGC regarding mitigation of impacts.

The purpose of this report is to describe the impacts of CBM development on groundwater resources through September 2017.

Groundwater Monitoring

At the August 28th, 2018 meeting of the TAC, Elizabeth Meredith presented an overview of the draft MBMG open file report titled 2017 Annual Coalbed Methane Regional Groundwater Monitoring Report: Powder River Basin, Montana. The 2017 annual report presents hydrographs of groundwater level responses to CBM and coal mine activities that show water level recovery in some wells while water levels remain depressed in others. In some cases, water levels continue to decline. The time required for water levels to recover to near baseline levels is unknown. Looking forward to 2018, the MBMG monitoring network added 10 water-level data loggers to monitoring wells in 2017 bringing the total to 47. Monitoring wells without data loggers will be monitored semiannually. The TAC has no specific mitigation recommendations at this time.

Current Activity

CBM production in both Montana and Wyoming has been declining since 2008 and no new Groundwater Monitoring and Development Plans subject to review by the TAC have been submitted in the last year.