



COLORADO

Colorado Water Conservation Board

Department of Natural Resources

1313 Sherman Street
Denver, CO 80203

P (303) 866-3441
F (303) 866-4474

John Hickenlooper, Governor

Mike King, DNR Executive Director

James Eklund, CWCB Director

TO: Colorado Water Conservation Board Members

FROM: Andy Moore, Water Resources Engineer
Interstate, Federal and Water Information Section

DATE: May 20-21, 2015 Board Meeting

AGENDA ITEM: 23. Report on South Platte High Groundwater Issues

Introduction

There have been increased occurrences of high groundwater issues since about 2008 in several areas in the lower South Platte Basin, primarily in the Gilcrest-LaSalle area and in two subdivisions on the west side of Sterling. These issues have included water in basements, waterlogging of agricultural fields, and impacts on septic systems and the Town of Gilcrest wastewater treatment plant.

Background

Over the last four years, CWCB has provided funding totaling \$2,420,000 for South Platte groundwater issues. This includes requests in three prior Projects Bills with a cumulative funding of \$1,250,000, severance tax grants totaling \$225,000, and \$945,000 from the Construction Fund for HB12-1278.

DWR Pilot Projects

Utilizing funds from the Projects Bills, the Colorado Division of Water Resources (DWR), in coordination with CWCB, began two multi-year pilot projects in 2012, one in Sterling and one in the Gilcrest-LaSalle area. The purpose of the pilot projects is to collect data and information necessary to identify the factors contributing to the high groundwater levels in these areas and ultimately to commission an independent analysis and interpretation of the potential causal relationships leading to recommendations to mitigate those impacts.

DWR installed 20 monitoring wells with dataloggers in and around the Sterling subdivisions and has been collecting water level data since then in these new wells, as well as in 16 existing wells in the area. In the Gilcrest-LaSalle area, 47 existing wells have been monitored as part of the pilot project.

Additionally, DWR and CWCB subcontracted with the Colorado Geological Survey (CGS) to conduct a hydrogeologic characterization of the Gilcrest-LaSalle area; the report was completed in September 2014. In both pilot project areas, DWR has also compiled climate, diversion, and recharge data. The independent analysis of the Sterling and Gilcrest-LaSalle pilot projects is currently being performed with a report due by the end of June 2015.

HB12-1278 - Study of the South Platte River Alluvial Aquifer

The Colorado Water Institute at Colorado State University (CSU) was charged in this legislation with conducting a comprehensive study of the South Platte alluvial aquifer. The report was completed in December 2013 and includes numerous recommendations regarding the high groundwater issues.



South Platte Basin Roundtable (SPBRT) Groundwater Technical Committee

This committee was formed by the Roundtable to review the HB12-1278 recommendations and look at potential solutions for the high groundwater issues. The committee has met 12 times since late 2014. Recommendations from the committee have included an enhanced DWR groundwater monitoring network and an emergency Gilcrest dewatering project. CWCB has committed \$15,000 in the short term (matched with \$15,000 from DOLA) to get the emergency dewatering project at Gilcrest implemented.

Groundwater Modeling

Funding from the Projects Bills is being utilized by CWCB and DWR to update and enhance the SPDSS alluvial groundwater model and run simulations relating to the high groundwater issues. Colorado State University has received funding from severance tax grants to perform an independent review of the SPDSS groundwater model, including the simulation of various scenarios.

Groundwater Legislation

Three bills relating to South Platte groundwater issues were passed by the Legislature this year.

HB15-1013 (Coram-Sonnenberg & Hodge): This bill requires CWCB and DWR to administer two pilot projects (one in Gilcrest-LaSalle area, one in Sterling) to evaluate alternative methods for lowering the groundwater table in areas experiencing damaging high groundwater levels.

HB15-1166 (Saine & Arndt—Marble): This implements recommendations from the SPBRT Groundwater Technical Committee for enhancing the existing DWR groundwater monitoring network in the South Platte alluvial aquifer.

HB15-1178 (Saine & Humphrey—Marble): The bill establishes an emergency dewatering grant program for the purpose of lowering the water table in areas of Gilcrest and Sterling. The grant program is to be administered by CWCB in collaboration with DWR, and CWCB is to seek input from the SPBRT and the Groundwater Technical Committee on the general costs associated with dewatering in these areas. In FY 2015-16, \$165,000 will be transferred from the General Fund to the Construction Fund, and in FY 2016-17, \$290,000 will be transferred for implementation of the grant program.

Staff Recommendation

This item is informational only, and there is no action required by the Board.