Current Projects

Last Updated Monday, 03 December 2012

Groundwater Recharge and Supply Evaluation for GWMA Municipalities and Areas Near the East Low Canal Project (Municipalities/Canal Project)

The GWMA is currently working on two projects:

1) Groundwater Recharge and Supply Evaluation for GWMA Municipalities, and

2) Areas near the East Low Canal Project.

These projects know as the Municipalities/East Low Canal Project builds on the results of the recently completed GWMA Groundwater and Hydrologic Modeling Project.

The portion of the Municipalities/Canal Project focused on municipalities within the GWMA will develop local hydrologic models for assessing municipal groundwater supply sources, including potential options such as aquifer storage and recovery (ASR) to meet future demands.

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The portion of the Municipalities/Canal Project focused on canals located near the East Low Canal will identify wells near the East Low Canal water delivery system that appear to be sustained by modern recharge.

The GWMA covers approximately 8,300 square miles in south-central Washington, encompassing all of Adams, Franklin, Grant, and Lincoln Counties. Within this area groundwater from the Columbia River Basalt Group (CRBG) aquifer system supplies most of the drinking water to 25 municipalities. This same aquifer system also supplies irrigation water to several hundred thousand acres of agricultural land.

Since the onset in the 1970s of extensive groundwater pumping within the GWMA, many portions of the CRBG aquifer system have experienced significant water level and pumping volume declines. These declines are impacting the use and development of groundwater supplies, as dropping water levels and reduced well pumping capacity lead to the drilling and construction of increasingly deeper and more costly water supply wells. Given this though, there are portions of the CRBG aquifer system within the GWMA where pumping and water level declines may be manageable, and where modern groundwater recharge is abundant enough to support some well pumping. Building on the body of knowledge GWMA has compiled over the past 10+ years of investigative effort, the Municipalities/Canal Project will address several specific issues now before water resources planners and implementers:

For GWMA’s municipal stakeholders, the Municipalities portion of the project will result in an evaluation of groundwater supply conditions, including potential long-term options for meeting future demand.

The Canal portion of the project will provide basalt well irrigators located near the East Low Canal with the information they need to determine if their basalt wells are receiving sufficient modern recharge to reliably support current pumping practices into the future.

The Municipalities/Canal Project will provide GWMA stakeholders with tools and information directly applicable to the decisions they will need to make over the next several years as CRB aquifer systems continue to deteriorate and as new and/or alternative water supply options are explored. This represents a departure from the objectives of past GWMA projects, which focused on basic investigation and assessment of regional conditions. In the Municipalities/Canal Project, GWMA will directly engage with specific entities and stakeholders to provide them with information specific to their current groundwater conditions, how those conditions could change with time, and the potential actions these well owners/operators might take to address future water supply needs. The Municipalities/Canal Project will be completed as expeditiously as possible. The Municipalities portions of the project is scheduled to be completed on or about June 30, 2012, and the Canal portion will be completed by the end of December, 2012.

City	Carbon 14 Age (Years)
Connell	3,730
Ephrata	7,320
Moses Lake	13,420
Almira	9,350
Creston	2,460
Davenport	23,070
George	1,980
Harrington	Modern
Hatton	Old

Kahlotus
Old

Lind
24,760

Mattawa
7,020

Mesa
Modern

Odessa
26,250

Othello
24,400

Quincy
1,580

Ritzville
15,520

Royal City
22,320

Reardon
14,970

Soap Lake
12,590

Sprague
18,370

Warden
3,500

Washtucna
11,240

Wilbur
5,100

Wilson Creek
Old