

Regional Aquifer Storage Recovery Groundwater Model

GRANT TYPE	Water Storage and Supply
GRANTEE	South Metro Water Supply Authority (SMWSA)
GRANTS FUNDING REQUEST	Project Total: \$199,035 (75% CWCB -\$153,026) / (25% SMWSA - \$31,009 cash + \$15,000 in-kind) Total Cash: \$184,035; Total In-kind: \$15,000 (subject to change)

PROJECT OBJECTIVES

- ✓ Compile groundwater data pertaining to the application of a multi-hub regional ASR system within the South Metro area.
- ✓ Develop a robust South Metro Conceptual Model that will inform a regional numerical ASR groundwater model.
- ✓ Work closely with a stakeholder Technical Committee in collecting data and input on key project components.
- ✓ Develop an easily digestible technical report summarizing the available data; conceptual model development approach; key findings; and constructive recommendations for the Phase 2 numerical model.

PROJECT OVERVIEW

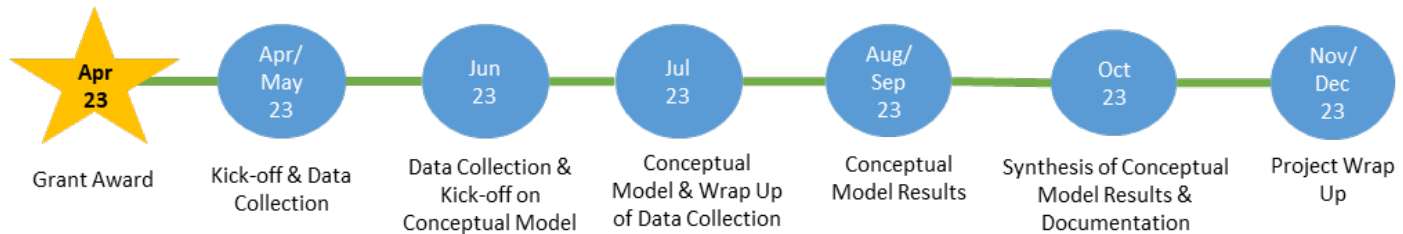
Numerous conversations have been held with SMWSA members and other regional providers (e.g., Denver Water and Aurora Water) on the benefits of a South Metro ASR Regional Model. Such a model will support informed decision making, particularly on using ASR to store renewable surplus supplies when deliveries exceed demands and then to draw upon the stored reserves when needed. The model will serve as a tool to evaluate ASR operational scenarios; better understand ASR related infrastructure needs; and assist in addressing questions pertaining to hydrogeology, potential ASR operations, well interactions, accounting, permitting, etc.

The following three water providers have been identified as ASR “Hubs” for incorporation into the South Metro Regional ASR Model: East Cherry Creek Valley Water and Sanitation District, Centennial Water and Sanitation District, and the Town of Castle Rock. The South Metro ASR Regional Model will be designed to assist in investigating the feasibility, opportunities, and limitations of an integrated three-Hub regional ASR system. This current phase, Phase 1, focuses on the development of the conceptual model. The South Metro Conceptual Model will include the compilation of a broad spectrum of technical data including groundwater levels; aquifer properties such as transmissivity, hydraulic conductivity, well yields; location of wells and neighboring wells (as feasible); operational capacity; and delivery limitations. These data will form the technical platform necessary to develop and calibrate a numerical model (to be developed in Phase 2). The numerical model will be constructed to simulate ASR operations in the three designated Hubs. Modeling scenarios will be developed to further understand the opportunities and limitations of a multi-hub integrated ASR system in the South Metro area.

SOUTH PLATTE & METRO BIP GOALS MET WITH THIS PROJECT

- GOAL 1:** Encourage implementation of projects
- GOAL 2:** Maximize development of native South Platte supplies
- GOAL 3:** Maintain and improve M&I efficiency (e.g., elimination of evaporative losses of stored water)
- GOAL 4:** Maintain and promote reuse (opportunity to store WISE and other renewable reuse water)

PROJECT SCHEDULE



HAVE QUESTIONS? Contact Courtney Black, Project Manager at cblack@intera.com