



Arapahoe County

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Board Summary Report

File #: 24-613

Agenda Date: 11/12/2024

Agenda #: 6.b.

To: Board of County Commissioners

Through: Bryan Weimer, Director, Public Works and Development

Prepared By:

Loretta Daniel, Long Range Planning Program Manager and Larry Mugler, Planner/Project Specialist

Presenter: Will Koger, Forsgren Associates, Inc., Consultant Team Leader

Subject:

Arapahoe County Water Supply Study

Purpose and Request:

The Water Supply Study (Study) consultants have completed the Water Supply Study document. The Study was available for public comments during the month of October, relevant public comments have been identified, and the Study is before the Board for final action. Staff is requesting that the Board accept the Water Supply Study and direct the staff and Planning Commission to incorporate the Study into the Arapahoe County Comprehensive Plan.

Background and Discussion: The purpose of the Study is to understand present and future conditions of water supply and demand, to identify efficiencies that can be achieved, and to take steps through comprehensive planning, development review, and regulatory processes to encourage best practices for water demand management, water efficiency, and water conservation. The overall intent of the Study is to ensure that land use decisions are made based on balancing the efficient use of limited water supplies with the needs of new residents, businesses, and industry to have a reliable water supply. Another important consideration was to develop an approach to evaluate the water supply for new development at an earlier stage in the development process.

The goals of the Study are to:

1. Close potential gaps between future supply and demand;
2. Improve water use efficiency; and
3. Extend the life of Denver Basin aquifers to sustain a long-term supply.

The Water Supply Study has a planning horizon of 2050 and expands on the scope of an earlier water study completed in 2001, which was incorporated into the 2001 Arapahoe County Comprehensive Plan. Recommendations from this Study will be used to update the goals, policies, and strategies in the 2018 Comprehensive Plan as well as lead to new regulations in the Land Development Code.

The Study is funded through a combination of grants from the Colorado Water Conservation Board and ARPA funding provided by the Board of County Commissioners (BOCC). In November 2022, a contract was signed with a consultant team led by Forsgren Associates, Inc. and with LRE Water and Michael Baker International to

carry out the Study with a maximum budget of \$494,250.

An Advisory Committee comprised of representatives of the water suppliers and land use planners from the jurisdictions in the county provided guidance and comments for the Study. Three public meetings were held in 2024, one virtual and two in-person, to identify areas of concern and obtain comments. In addition, the public involvement process included an online survey (MetroQuest) which was open in early 2024 for the public to identify their concerns and ideas on a range of topics, including water supply, conservation, and water reuse.

To provide an overview, the Water Supply Study includes 10 sections which are:

1. Introduction. This section explains the goals and objectives of the study and introduces the interactive map developed for this Study.
2. Stakeholder/Public Participation. An Advisory Committee was established with representatives of water providers and land use planners in the county's jurisdictions. Public engagement consisted of a survey and three public meetings which provided opportunities for the public to identify their concerns and provide ideas.
3. Land Use & Socioeconomic Scenarios. Two growth scenarios were developed, in part based on the 2023 Colorado Water Plan. The projections include population and employment growth.
4. Water Providers. This section provides an overview of the water providers in the county and their service areas.
5. Projected Water Demands. Using the growth scenarios of Section 3, water demands were estimated for the water providers' service areas.
6. Groundwater Analysis. This section identifies the available groundwater sources in the county and describes the results of the Petra modeling.
7. Water Supplies vs. Demands. This section uses the information and data in the previous water demand and groundwater supply information to compare water supplies to demands and identify potential gaps.
8. Water Management Strategies. Strategies such as water conservation are analyzed in detail and estimates of potential reductions are provided. The role of water reuse is also explained.
9. Recommended Policies. The Study concludes with policies for the County to implement.
10. Implementing Recommendations. This is a summary of the recommended policies and actions.

The draft Study and Appendices, which provide technical data and detailed information, were posted on the County's website with an opportunity for public comment. A summary of public comments and the consultant's responses is attached.

With those comments addressed, the Arapahoe County Water Supply Study is complete and ready for Board acceptance. Following acceptance, the staff and the Planning Commission will consider the findings and recommendations and prepare a Water Supply Element for the Comprehensive Plan. Revisions to the Land Development Code to implement the Study's recommendations may also be proposed.

Fiscal Impact: The Study is on budget and will be completed within the approved budget of \$494,250. The work program of the Planning Division will include the preparation of the Water Supply Element.

Alternatives: The Study contains several recommendations. The attached resolution directs the staff and Planning Commission to consider the recommendations, to prepare a Water Supply Element for the Comprehensive Plan, and to propose appropriate revisions to the Land Development Code to implement the Study's recommendations. Alternatively, the Board could accept the Study and not move forward with the

recommendations.

Alignment with Strategic Plan:

- ☒ Be fiscally sustainable
- ☒ Provide essential and mandated service
- ☒ Be community focused

Staff Recommendation: Staff recommends that the Board accept the Study and direct that a Water Supply Element for the Comprehensive Plan be prepared.

Concurrence: None

Resolution: A draft resolution consistent with the staff recommendation is attached.