

Watershed Management Plan Protects City Water Supply

By coordinating development of a watershed management plan, Brown and Caldwell helped the City of Aurora, Colo., realize its vision of a multiple-use watershed basin supplying high-quality potable water.



B R O W N A N D
C A L D W E L L

By developing a matrix to rank impacts of existing and potential land uses, Brown and Caldwell helped the City of Aurora develop a watershed management plan to protect the Aurora Reservoir.

THE SITUATION

Eutrophication was a leading indicator of the degradation of one of the two terminal reservoirs of the City of Aurora, Colo. The city realized that it had to act quickly to protect the other, Aurora Reservoir, from similar degradation.

Constructed in 1990 in an area of native short-grass prairie, Aurora Reservoir stores potable water, which flows from surrounding high moun-

tains. The City of Aurora owns the land occupied by the reservoir, but much of the land in the immediate watershed area is privately held and marked for development.

As the first step toward protecting Aurora Reservoir, the city contracted with Brown and Caldwell to help put together a watershed management plan.

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Solutions

Brown and Caldwell coordinated development of a plan to meet the city's vision of a multiple-use watershed basin that would continue to supply high-quality water. City staff carried out the planning and Brown and Caldwell consolidated the results into a comprehensive watershed management plan that incorporated the needs of a wide range of city departments. To ensure the project's success, Brown and Caldwell:

- Integrated water-quality planning into other ongoing planning studies that affect land use in the watershed, such as the comprehensive plan, transportation study, and recreation master plan.
- Developed a matrix to rank the impacts of existing and potential land uses.
- Helped develop water-quality objectives and threshold levels at which additional action would be taken by the city.
- Developed a water-quality monitoring program to assess the plan's long-term effectiveness.



Brown and Caldwell coordinated development of the Aurora Reservoir management plan, which provides for both a multiple-use watershed area and a potable-water reservoir.

Details

- Population served by the City of Aurora: 250,000
- Aurora Reservoir statistics: 32,000-acre-foot storage capacity, 635-acre surface area, 35-foot average depth.
- Immediate watershed area: 3,000 acres (4.5 square miles)
- Extended watershed includes mountainous regions in upper reaches of the South Platte, Colorado, and Arkansas river watersheds
- Relevant regulation: Safe Drinking Water Act (Enhanced Surface Water Treatment and Disinfection/Disinfection By-Product Rules)

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