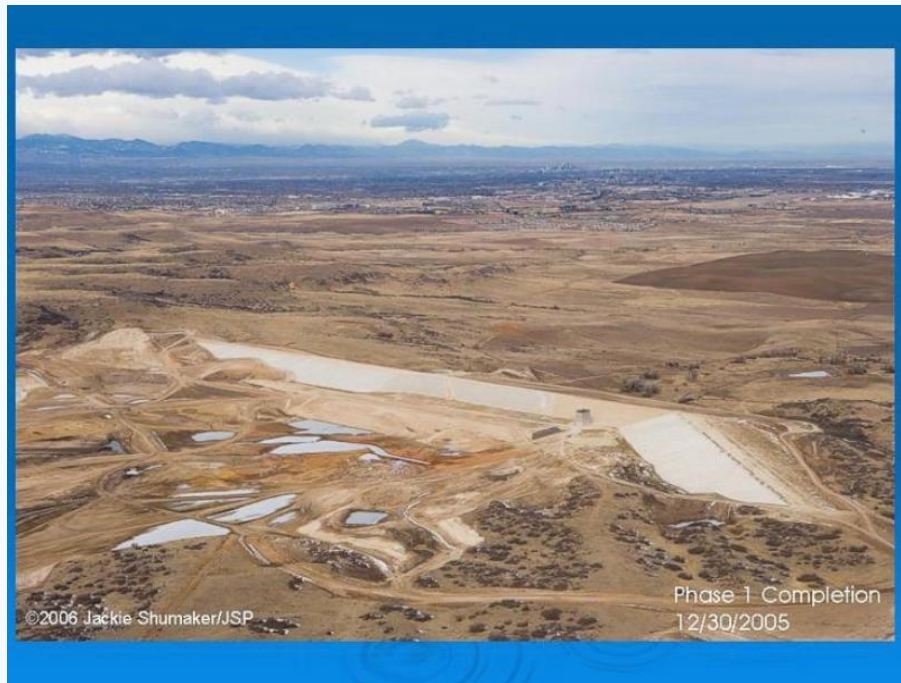


THE PURPOSE AND NEED FOR RUETER-HESS RESERVOIR

BACKGROUND

Most of the current municipal water supplies in Douglas County come from one source, the Denver Basin ground water aquifers, which are located 400 to 2,800 feet underground. Because of the depth to this ground water, these aquifers only receive minimal replenishment by recharge from rain and snow. Due to this lack of water replenishment and the fact that Douglas



County's population is growing, creating an increasing demand on water, more Denver Basin ground water is being used than is being replenished. This has resulted in a situation where water levels are declining in the aquifers and the production rates in the wells operated by water supply entities such as the Parker Water and Sanitation District (PWSD) are also declining. This creates the need to better manage these declining water supplies and to eventually lessen our dependence on this resource. Given that Douglas County is expected to experience a population increase of 40 percent in the next 20 years, the aquifers cannot be relied on to provide a permanent supply to Douglas County residents.

There are only limited surface water supplies in Cherry Creek, which would help reduce demands on Denver Basin ground water. However, most of this water has been spoken for by other water supply entities. PWSD does have a right to take water from Cherry Creek during limited periods of time, but surface water storage is necessary for PWSD to take full advantage of the capture of this water as one means to lessen its dependence on Denver Basin ground water.

These surface water and ground water issues that limit water supply availability were recognized 25 years ago by PWSD, which is when it applied for surface water storage as a means to manage its available water supplies, and to ultimately develop new water supplies.

PURPOSE AND NEED

Rueter-Hess Reservoir was designed as a water management tool to allow the efficient use of available water supplies and to store future renewable water supplies. Specifically, related to current Denver Basin aquifer water supplies, Rueter-Hess Reservoir allows PWSD to pump its Denver Basin wells at a more constant, year-round rate, storing excess water in the winter and then using this water to meet peak demands in the summer, rather than having to instantaneously produce this water from wells that are experiencing water level and water production declines over time. Rueter-Hess also allows PWSD the ability to divert available Cherry Creek flows at its diversion structure south of Stroh Road; water that can supplement the available Denver Basin water. PWSD estimates it can store an average of 4,800 ac-ft/yr of renewable Cherry Creek water under these rights. Reusable water from the Denver Basin can also be captured at the diversion structure, pumped to Rueter-Hess, and stored for later use. Rueter-Hess provides PWSD with a reserve of water to draw on which has not been previously available, and that is not available to most other Denver Basin water users. The more Rueter-Hess is used as a water management tool, the more we preserve the water in the Denver Basin aquifers.



Tying these water supplies together for use by PWSD is the proposed water purification facility to be built at Rueter-Hess Reservoir, which will treat water stored in the reservoir. The water purification facility is a vital link in the water management process, as it will provide for up to 50 percent reuse of PWSD's current water supply and will minimize the need for providing peak summertime demands solely from its Denver Basin ground water wells. This type of water management operation helps maintain aquifer water levels and well production and results in fewer

wells being constructed in the short term, thus saving money spent on capital costs. It will also preserve the Denver Basin aquifers as an excellent backup drought supply, should it be needed in the future.

The storage of Denver Basin water, water diverted under PWSD's Cherry Creek rights and the reusable return flows all serve to help meet PWSD's growing demands. As PWSD continues to grow, it continues to seek out new renewable sources of water that can serve as a permanent supply for its customers. While there are several possible options for this supply, all require some form of surface storage to ensure that a constant supply is available each year. Rueter-Hess Reservoir will provide such storage, completing one more step in making a renewable, reliable supply available to PWSD customers.