

Water System

Background

Drilled wells, along with Spring Creek flow from Providence Canyon provides a water supply that is clean, desirable, and sufficient for City needs. Maintenance and upgrade of the water system is a large part of city expenditures.

Principles

- Maintain a water supply that is clean, pure and cold.
- Provide additional water sources needed for present and future growth.
- Manage growth according to the availability of water sources and capabilities to distribute.
- Conserve water resources by development of a secondary pressurized water system.

Master Plan Directive

Providing an adequate and clean drinking water supply for city residents has been, and still is, among the top priorities of the city council and administration. As new developments occur, and as Providence lands are filled with new homes and landscaping, the need for new water sources, storage capacity, and distribution for the water system must proceed in an orderly and functional manner.

Current concerns include:

1) High Water Usage

Culinary water usage is very high in the summer due primarily to outside irrigation. Land being annexed into the city which was previously flood irrigated now requires culinary water.

Zone 1 - downtown - 36% more than indoor use

Zone 2 - lower bench - 63% more than indoor use

Zone 3 - upper bench - same as indoor use

2) Storage

The downtown area needs additional capacity - the demand is growing. Present storage does not provide adequate recovery. Eck Reservoir does not have capacity to service the downtown, supply storage, and feed the pump when water is being relayed to upper tanks.

Future Needs:

1) Secondary Water System

Initially, a feasibility study is needed to evaluate the potential for development of a city-wide pressurized secondary water system for use by all residences and businesses.

A secondary water system is the long range solution to relief on the demand for high quality culinary water. In 2008 the sewer system will be paid for. Plans need to be started now to make a secondary system a reality.

This project will need to be sold to the public at large, convincing them that the system is the proper solution. This may include using City-owned water shares and/or financial assistance. This needs to be done in such a way that city administration is not criticized for allowing too rapid growth.

Subdivisions must include the installation of future-use secondary water pipes (stub-in). In areas where there are water shares that cannot be utilized by the city, developers should be required to develop secondary water systems. This should occur immediately since water supply and utilization are a present concern. The city must continue their present implementation of secondary water use for parks and the cemetery. Since multi-family projects will include open space within the developments, the city must now require that secondary water systems be installed in all such developments.

Education of secondary water users to more efficiently manage the water resources must be part of the development of secondary water systems.

2) Storage

Solutions to the storage concerns include:

- Bring a new well on-line in 2000
- Add a new 1.5 million gallon tank at Eck tank location or further north at the same elevation.
- Upgrade the booster pumps at Eck tank.
- Add booster pumps at Redds tank to pump water to Combs Flat tank.

3) Water Projects

- Pump station and dedicated water line to Eck tank from well on 400 South Main (2000-2001)
- Well on 100 East and 200 North.
- Develop and adopt a water rate plan to encourage conservation
- Construct a 1.5 million gallon tank on the Eck tank property or in the northeast part of the City.

Water System cont'd

- Upgrade the capacity of the pumps at Eck tank and water line to pump water to the tanks at the mouth of the Canyon concurrent with new tank.
 - Identify and develop a secondary water source to irrigate the cemetery. Expand use of well to water cemetery.
 - Install pumps to use secondary water to irrigate Zollinger Park, the middle school, and future rec area at church property west of the middle school.
 - Install pumps to use secondary water for new park north of post office.
 - Encourage development to irrigate yards with secondary water.
 - Continue to upgrade the distribution lines and fire protection in the downtown area.
 - Assure that all new buildings and subdivisions have installed electronically-read water meters.
 - Replace existing water meters with electronically-read water meters (100-200 meters per year).
 - Study ways to reduce the use of culinary water for irrigation, including incentives for use of secondary water, neighborhood storage areas of secondary water, lease of city owned shares to individuals or neighborhoods interested in using accessible secondary water.
 - Upgrade the telemetry system to monitor and control the water and sewer system at a central location.
 - Acquire additional water rights to Broadhollow Spring (define location) and provide capability to use water.
 - Adjust water rates consistent with need for additional FTE required to maintain system.
- 4) Storm Water Secondary System
Investigate and incorporate storm water as a source to supplement secondary water needs.

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