

## **South Jordan City**

### **Position Regarding Future Use of Secondary Water**

**Date: December 21, 2005**

#### **INTRODUCTION**

South Jordan City has invested in a number of different studies to determine the economic feasibility of installing a city-wide pressurized secondary water system. There are several irrigation canals that run through the city and have traditionally been used for agricultural irrigation. Many residents use this source of water for irrigation of lawns and gardens. More than one third of South Jordan City residents have access to secondary water for irrigation, either through the existing city maintained secondary water system or through private irrigation systems. South Jordan City has, for a number of years, considered the feasibility of providing this secondary water to the residents through a city-wide pressurized irrigation system. In 2002, a Secondary Water System Citizens Committee (Citizens Committee) was formed in order to work with Staff and provide recommendations to City Council.

The Citizens Committee requested a feasibility study outlining several different alternatives. Franson Noble Engineering was retained to complete the Secondary Water System Feasibility Study in January of 2003. The Citizens Committee recommended a preferred alternative from the feasibility study, and a Pressurized Secondary Water Economic Feasibility Analysis was completed in fall of 2003 by Lewis, Young, Robertson and Burningham, Inc. A Secondary Water System Master Plan was then prepared by Franson Noble Engineering based on the preferred alternative and feasibility analysis, and was adopted by City Council in October of 2004.

It was determined from the Secondary Water System Master Plan that the cost of implementing a city-wide pressurized irrigation system would be approximately \$57,000,000. A Secondary Water System Capital Facility Plan was then prepared in April of 2005 by Franson Noble Engineering in order to define the phasing and funding of the project. In January of 2005, the City submitted a proposal for federal funding in order to help fund 50-percent of the capital cost, but was unsuccessful in the request. Without federal assistance, bonds and impact fees would be required to pay for the secondary water system. Bonding would ultimately be passed on to users through increased secondary water rates. In order to compare the approximate difference in future end-user rates for the current culinary water system versus the proposed culinary and secondary water system, an update to the economic feasibility analysis was commissioned.

In May of 2005, South Jordan City retained Lewis, Young, Robertson & Burningham, inc. to provide an update to the 2003 Pressurized Secondary Water Economic Feasibility Analysis (Economic Analysis Update). The update reflects new data provided from the Secondary Water System Master Plan and the Secondary Water System Capital Facility Plan. It was determined from the Economic Analysis Update that residents would actually be paying more for water with a separate pressurized secondary water system until after the year 2024.

**DECISION TO NO LONGER PURSUE THE DEVELOPMENT OF A CITY-WIDE PRESSURIZED SECONDARY WATER SYSTEM:**

The Economic Analysis Update determined that the annual cost per acre-foot would remain higher after the construction of a secondary water system than costs would be to use only culinary water until the year 2024 (see Table 1.1 below). Although the annual cost per acre-foot is not a direct reflection of the cost that residents will ultimately pay for water service, there is a relation between these costs. It therefore can be assumed that the additional annual cost per acre-foot will ultimately be passed onto residents through their water bill. Based on the secondary water survey conducted by staff in 2005, close to 70 percent of residents responding expressed they were not willing to spend more than \$20 per month for secondary water (see Figure 1.1). It is likely that the monthly cost for secondary water would be significantly higher than \$20 if the city-wide pressurized secondary water system were built. It is also believed that the majority of residents are not willing to pay more for water over the next twenty years in order to save money beyond the year 2025. Furthermore, as pointed out in Lewis Young Robertson & Burningham's Economic Feasibility Update, bonding \$57,000,000 for the city-wide secondary water system could seriously hinder the city's ability to bond for other necessary improvements.

Table 1.1\*

Projected Annual Cost Per Acre-Foot

Year	Culinary & Secondary Systems Cost	Secondary Only Cost	Year	Culinary & Secondary System Costs	Secondary System Cost
2006	60.00	60.00	2019	92.00	80.00
2007	70.00	57.00	2020	90.00	80.00
2008	70.00	57.00	2021	90.00	85.00
2009	70.00	60.00	2022	90.00	85.00
2010	70.00	67.0	2023	90.00	88.00
2011	85.00	70.00	2024	92.00	90.00
2012	87.00	70.00	2025	83.00	83.00
2013	87.00	75.00	2026	83.00	85.00
2014	83.00	85.00	2027	75.00	90.00
2015	92.00	80.00	2028	75.00	90.00
2016	93.00	80.00	2029	75.00	90.00
2017	92.00	80.00	2030	75.00	83.00
2018	92.00	80.00			

\*Table 1.1 data extracted from pg. 9 of the Pressurized Secondary Water Economic Feasibility Analysis Update completed by Lewis Young Robertson & Burningham INC., May 2005.

**RECOMMENDATIONS:**

**RECOMMENDATION #1- SUPPORT EXISTING SECONDARY WATER SYSTEMS.**

Although it has been determined that pursuing city-wide pressurized secondary water is currently not economically feasible, South Jordan City will continue to support the existing secondary water system

and encourage the introduction of new secondary water systems where feasible. The City believes that where economically viable, secondary water serves the public interest of its citizens.

**RECOMMENDATION #2- CONTINUE TO ENCOURAGE THE INTRODUCTION OF NEW SECONDARY WATER SYSTEMS WHERE ECONOMICALLY FEASIBLE.**

The City will continue to require the addition of secondary water systems with new developments where feasible. Staff is currently in the process of establishing set standards for what is economically feasible with regard to new secondary water systems. Each new development will be evaluated by the set standards regarding economic feasibility, and all developments that are deemed feasible will be required to install a secondary water system.

**RECOMMENDATION #3- DETERMINE RESPONSES TO FINANCIAL QUESTIONS ARISING FROM FAILURE TO DELIVER SECONDARY WATER TO SERVICED NEIGHBORHOODS.**

The City will develop a clear policy as to the circumstances whereby refunds are provided or when residents may opt out of secondary water service.

**RECOMMENDATION #4- RESEARCH AND ESTABLISH A NEW FEE STRUCTURE.**

For neighborhoods that currently have access to secondary water, a new fee structure should be developed that would make it clear that there would be a fixed cost to convey the water and that the supply of water cannot be guaranteed. The proposed fee structure would include three components: (i) a Base Fee or Conveyance Charge, with a pumped and non-pumped rate; (ii) a Water Use Charge; and (iii) an Administration Fee. The Water Use Charge might be applied only during months when irrigation water is available for use, without consideration for the volume used. The Water Use Charge may vary slightly between lots of different dimensions. The Administration Fee enables the City to recover a portion of its administration overhead for the service as funded through the General Fund.

**RECOMMENDATION #5- PROMOTE THE USE OF SECONDARY WATER FOR LARGE TRACTS OF LAND.**

Providing for economic feasibility, it appears appropriate for large landowners, including the City, to be encouraged to implement secondary water irrigation systems for large tracts of land. The City has connected large properties to the secondary water system where it has been feasible in the past including an LDS church with ball fields near Ashford Acres.

The City has estimated costs of providing parks with secondary water, and will compare those costs with the current ET sensor program being implemented by the Parks Division.

The ET sensor system is meant to conserve water based on the plants actual water requirements. The City plans as funding allows, to install the system on all large City owned irrigated lands. The City Cemetery currently has an ET sensor installed. In order to manage our water use more wisely. The City will tie-in secondary water to parks as deemed more cost effective.

**RECOMMENDATION #6- ESTABLISH A BOARD SEAT ON JORDAN VALLEY WATER CONSERVANCY DISTRICT.**

South Jordan City is currently pursuing a seat on the Jordan Valley Water Conservancy District (JVWCD) Board of Directors. This will allow the City to be better represented in important JVWCD decisions. This action will become more important without a city-wide secondary water system in place, as more water will need to be purchased from JVWCD to meet the needs of outdoor watering.

**RECOMMENDATION #7- PERIODICALLY UPDATE THE SECONDARY WATER SYSTEM MASTER PLAN.**

South Jordan City will continue to periodically update the Secondary Water System Master Plan, as well as update and evaluate cost effectiveness. The City will also continue to watch for supplemental funding opportunities from Federal and State Agencies.

**RECOMMENDATION #8- DEVELOP AN EFFECTIVE BENEFICIAL USE PLAN FOR WATER SHARES.**

The City has acquired water shares (from the five main canals which run through the City) mainly through development, which has provided water for irrigation use by residents and for city properties. Without a city-wide secondary water system in place however, these shares must be put to beneficial use as required by the Office of the State Engineer, in order to protect the shares from forfeiture. Staff has been developing a plan to put all shares to beneficial use or file non-use applications with the state engineer's office in order to protect the right to use the shares in the future.

**RECOMMENDATION #9- DEVELOP A PLAN TO GET A RETURN ON CURRENT WATER STOCK.**

Staff recently evaluated and adjusted the fee to lease shares. The new fee structure covers assessment fees, use cost, and administrative fees. The new fee schedule is attached.

**RECOMMENDATION #10- DEVELOP AN EDUCATION PLAN FOR SECONDARY WATER.**

An education plan will be put into place to inform residents on the steps required to use secondary water. Workshops will be organized that will teach residents the necessary steps in order to get their sprinkler systems connected to the secondary water source. The first of these workshops was conducted in September of 2005 and additional workshops are being scheduled for the spring and fall of 2006. Please see attached email for a report on the September Secondary Water workshop.

In conjunction with the workshops, water conservation is also being promoted in the City. The City has an approved conservation plan on file with the State, and distributed flyers the summer of 2005, as well as posting helpful conservation info. and links on the City's website. Staff will continue to promote conservation in the future, with a goal of conserving 25% by the year 2025.