Item II

SALT LAKE CITY COUNCIL STAFF REPORT

DATE:	February 4, 2003
SUBJECT:	**Water Conservation Rate Structure**
AFFECTED COUNCIL DISTRICTS:	All Districts
STAFF REPORT BY:	Gary Mumford
ADMINISTRATIVE DEPT. AND CONTACT PERSON:	Department of Public Utilities LeRoy Hooton

cc: Rocky Fluhart, David Nimkin, LeRoy Hooton, Jeff Niermeyer, Jim Lewis, Stephanie Duer, Rick Giardina, DJ Baxter

TWO TO THREE HOURS HAS BEEN SCHEDULED FOR THIS BRIEFING DUE TO THE COMPLEXITY OF THE ISSUE. TERMS AND OPTIONS WILL BE EXPLAINED IN DETAIL BY THE CONSULTANT.

KEY ELEMENTS:

The Department of Public Utilities is proposing a water conservation rate structure as a tool to promote water conservation, reduce peak demand, extend the City's water supplies, and delay future large water development projects. The Department hired Rick Giardina & Associates to help develop water rate structure options. The Public Utilities Advisory Committee (PUAC) formed a 20-member group of citizens and representatives of special interest organizations to review the consultant's analysis and make recommendations to the PUAC. The citizen subcommittee held six meetings with the consultants between August and December 2002. On November 19th and January 8th, the PUAC received briefings from Rick Giardina. After considering the recommendations of the citizen subcommittee, the PUAC forwarded a recommendation to the Administration for consideration. The Administration is suggesting a revision to the rates proposed by the committees. The Department of Public Utilities proposes that the new rates become effective on June 1st in order to encourage water conservation throughout the entire irrigation season.

The Administration's is proposing the following:

- **Restructure water rates for residential customers –** Implement a three-tiered inclining price structure for April through October in which the per-unit cost would increase with the amount of water used, with a flat rate for winter-month consumption.
- **Restructure rates for industrial and commercial accounts –** Implement a three-tiered inclining price structure, where Block 1 represents average winter consumption, Block 2 represents appropriate irrigation season consumption up to 300% of the customer's average winter consumption, and Block 3 represents, with an even higher rate, water use in excess of 300% of average winter consumption.

- **Restructure rates for irrigation accounts –** Set a target water budget based on the size of the irrigated property and other factors. Irrigation rates would begin in Commercial Block 2, with the higher water rate of Block 3 for exceeding the target budget.
- **Eliminate water allotment included in the minimum charge –** Eliminate the base allowance of 500 cubic feet of water that is currently included in the monthly minimum charge.
- **Eliminate demand charge –** Eliminate the monthly demand charge for customers with large water meters.
- **Adjust the deferential multiplier for water sales outside corporate limits –** Adjust the multiplier outside of City limits from 1.5 times the in-City rates to 1.35 times the in-City rates, due to changes in the rate of return formula.

MATTERS AT ISSUE/POTENTIAL QUESTIONS FOR ADMINISTRATION:

1. Previously approved rate increase effective July 1, 2003 – In June 2001, the Council approved four annual water rate increases to help finance a new water treatment facility and other improvements to be constructed by the Metropolitan Water District. The second annual rate increase of 3% will become effective on July 1, 2003

2. Pricing objectives – The citizen Water Rate Subcommittee identified several pricing objectives and determined the importance of each objective by having subcommittee members complete a ranking process. The most important objectives as ranked by the subcommittee were **water conservation, peak usage reduction, compliance with legal authorities,** and **growth pays for itself**. *The Council may wish to discuss its pricing objections. Other factors to consider include* ***customer impact***, ***customer acceptance***, ***public use of green space***, *and* ***social equity***.

3. Water rate options considered – In examining options to modifications of the City's current seasonal approach for setting water rates, the Water Rate Subcommittee primarily focused on variations of the following alternative approaches. An ***inclining block*** approach provides set volumes of water within each of several blocks of water with the per unit price of each block greater than the previous block. Some communities use the ***average winter consumption*** approach**,** which establishes summer water allocations based on average winter-use patterns. Under this approach, rates increase when usage exceeds typical indoor consumption, since outdoor usage represents peak usage. The ***Irvine Ranch Model*** (California) sets a water target budget or water allocation for each customer based on the number of persons in the household and the total amount of landscapable area to be irrigated. The Irvine Ranch Model uses weather station data to adjust the allowance each month based on the evapotranspiration index for each day of the month, increasing the water allowances as temperatures increase. The Water Rate Subcommittee recommended the inclining block approach for residential customers, the average winter consumption approach for industrial and commercial customers, and a variation of the water target budget approach for irrigation-only accounts.

4. Residential Customers – A seasonal inclining block approach is proposed for residential customers as shown in the following table:

RESIDENTIAL CUSTOMERS		
	Current Rates (including 3% increase on 7/1/03)	**Proposed by Subcommittee and Advisory Committee**
Current winter rates	**$0.61** per 100 cubic feet (748 gallons)	
Current summer rates	**$0.93** per 100 cubic feet	
Block 1: Up to 900 cubic feet		**$0.72** per 100 cubic feet
Block 2: From 900 cubic feet to 2900 cubic feet		**$1.10** per 100 cubic feet
Block 3: Excess of 2900 cubic feet		**$1.53** per 100 cubic feet

The average annual residential water bill will increase approximately $31 from $224 to $254, which is a 13.65% increase.

5. Industrial and Commercial Customers – The Water Rate Subcommittee recommended an average winter consumption approach for industrial and commercial accounts (including condominium/apartment complexes) with rates consistent with the consultant's cost analysis. The Administration is recommending using the same rates applicable to residential customers.

INDUSTRIAL AND COMMERCIAL WATER RATES			
	Current Rates (including 3% increase for 7/1/03)	**Proposed by Subcommittee and Advisory Committee (consistent with consultant's study)**	**Proposed by Administration**
Current winter rates	**$0.61** per 100 cubic feet		
Current summer rates	**$0.93** per 100 cubic feet		
Block 1: Up to 100% of average winter consumption		**$0.66** per 100 cubic feet	**$0.72** per 100 cubic feet
Block 2: 100% to 300% of average winter consumption		**$0.90** per 100 cubic feet	**$1.10** per 100 cubic feet
Block 3: Excess of 300% of winter consumption		**$1.35** per 100 cubic feet	**$1.53** per 100 cubic feet

6. Water budget for irrigation accounts – The committees recommended a target budget approach for irrigation-only accounts. The formula for the target is still being explored but could be based on a the number of factors such as amount of square feet of irrigated area, type of vegetation, historic monthly evapotranspiration index, and irrigation system efficiency.

IRRIGATION CUSTOMERS		
	Current Rates (including 3% increase for 7/1/03)	**Proposed by Subcommittee and Advisory Committee**
Current rates	**$0.93** per 100 cubic feet of water	
Block 2: Up to target budget		**$1.10** per 100 cubic feet of water
Block 3: Excess of target budget		**$1.53** per 100 cubic feet of water

Irrigation customers may exceed the target budget unless they have efficient irrigation systems and implement appropriate site management practices. The proposed rates establish a cost incentive to upgrade irrigation systems. Irrigation customers may see an increase to their water costs, but it is difficult to predict the actual increase percentage. The Department of Public Utilities is estimating an 18% to 30% increase. This may have a significant impact to the school district, University of Utah, golf courses, Salt Lake City's General Fund for parks, and other entities with large amounts of green space open to the general public in many cases. In fiscal year 2002, the City's Public Services Department spent $1,710,000 to water parks, street islands, the cemetery, and golf courses. *The Council may wish to discuss with the Administration the impact on the City and possibilities for funding upgrades to inefficient irrigation systems.*

7. Monthly minimum charge – The City's current water rates include a monthly service charge that not only recovers costs of reading and maintaining meters, but also includes an allocation of 500 cubic feet of water (3,740 gallons). The proposed water rates eliminate this water allocation so that conservation begins with the very first gallon of water used. This proposal is also more equitable to those households with only one or two occupants that don't use 3,740 gallons every month. Under the proposal, the monthly service charge for a residential customer would be reduced from $8.90 to $5.62. Therefore, under the proposed structure, the combined service charge and cost for the first 500 cubic feet of water will be $9.22.

8. Demand charge – The City's current water rates for industrial and commercial customers includes a demand charge based on the size of the water meter. The consultant concluded that the demand charge could not be justified. This recommendation will reduce the monthly service charge for industrial customers, condominium and apartment complexes, and for most commercial customers. For example, the proposal reduces the monthly service fee for a three-inch meter from $71.62 to $13.04 and reduces the fee for a four-inch meter from $109.99 to $14.02.

9. Salt Lake City's water sales outside its corporate limits – About 36% of the City's water customers are located outside the City limits (53,854 City accounts; 30,601 County accounts). A rate study in 1977-78 concluded that the City could use a multiplier of 1.63 times the in-City rates. Following the study, the City Commission set the multiplier at 1.5 times the City rates. This study is updated about every 10 to 12 years. An update of the study in 1990-91 supported the 1.5 multiplier for customers outside of the City. The Department of Public Utilities included an update of the study as part of the consultant's scope of services. Rick Giardini's study concluded that the rate multiplier used to calculate charges to customers outside of the corporate limits should be adjusted to 1.35 times the City rates from the current 1.5 multiplier. If the Council adopts this formula it will have the effect of decreasing rates outside of the City limits and increasing rates for customers located within the City. *The Council may wish to request that the Administration provide a legal opinion regarding whether the City has an obligation to adjust the rates based on the revised study. The Council may wish to keep the existing formula, if legally possible, as customers in the City pay property taxes to the Metropolitan Water District while customers outside of the City do not pay property taxes to the District. In addition, the higher water rates were a component of the annexation study. These higher water rates have been considered by some to be an incentive for customers to request annexation into Salt Lake City.*

10. Future water rate increases – The Council has already approved three more 3% rate increases relating to a new water treatment facility and other improvement to be constructed by the Metropolitan Water District. In addition to these increase, the Water Rate Subcommittee discussed possible additional increases beginning in July 2004 to accelerate the replacement of infrastructure from 0.6% each year to 1.0% of the system to be replaced annually. The Administration may present these rate increases relating to additional infrastructure upgrades to the Council in the future.

11. Public process – The Department of Public Utilities plans to meet with each community council over the next couple of months to explain the proposed rate structure and increases, and respond to questions. Detailed information will be placed on the Department's web page, and a flyer will be distributed with a future water bill. The Department requests that the City Council hold one or more public hearings.

Additional Staff Recommendation

12. Cubic feet vs. gallons – The proposed rates are measured in cubic feet rather than in gallons. Traditionally, wholesale water is sold in acre feet, and retail sales are in units of 100 cubic feet. Water meters report usage in cubic feet. However, a number of municipalities and water companies have converted to billing customers based on the number of gallons used (via computer programming change). It may be difficult for customers to visualize the number of gallons in a cubic foot of water. I initially supposed it was three or four gallons. Upon inquiry, a learned that there are 7.48 gallons in a cubic foot. I believe that customers will more easily understand how much water is allowed under each block and better understand their water bill if it reports the number of gallons used rather than the number of cubic feet. *The Council may wish to consider setting rates in thousands of gallons rather than hundreds of cubic feet. For example, the residential rates could allow 7000 gallons of water in the first block rather than 900 cubic feet. Alternatively, rates could be set and billed in units of cubic feet, but the bill could include gallons-equivalent information.*