

## CITY COUNCIL

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Reso No. \_\_\_\_\_ File No. \_\_\_\_\_

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**Agenda Item No.:** 17  
**Date:** February 16, 2011

**TO:** Honorable Mayor and Members of the City Council

**FROM:** Lori Vereker, Director of Utilities

**SUBJECT:** UTILITIES DEPARTMENT CONCEPTUAL PLAN TO ADDRESS WASTEWATER CAPACITY AND WATER RELIABILITY

### RECOMMENDATION:

It is requested that Council approve the conceptual plan developed by the Utilities Department to address wastewater capacity and also help to ensure water reliability.

### BACKGROUND:

The City of Escondido faces several challenges with respect to the future of their water and wastewater utilities. The City is approaching capacity at the Hale Avenue Resource Recovery Facility (HARRF). Plans must begin very soon to design and build facilities which will guarantee capacity for future development. In addition, water reliability continues to be a focal point for all of southern California. Imported water rates continue to rise, while the quality and quantity of imported water continues to decline. The Utilities staff has developed a plan that will address both the wastewater capacity issue and also help to ensure reliability of our water supply.

### The Proposed Plan:

#### Short Term:

- Increase use of recycled water for industrial/irrigation purposes. This will effectively reduce the discharge to the ocean through the outfalls.
- Work with Agriculture to provide a recycled water product that works for their purposes. Some of the growers even seem willing to provide land for recycled water tanks and pipelines.
- Close to closing a deal with Goal Line Energy (Iceoplex) to provide recycled water for their energy production plant.
- Bringing more schools and parks on line with recycled water irrigation.
- Negotiating with the Wild Animal Park on providing recycled water for their ponds and irrigation uses.
- Continue to look for new opportunities for recycled water use.

Long Term:

- Work toward 100% reuse of wastewater.
- Include backbone of purple pipe for large water users; in order to maintain our water revenues; we need to provide a source of water that is reliable and somewhat less expensive than our imported source for our large water users.
- Obtain approval for indirect potable reuse (IPR) of recycled water, similar to what City of San Diego is doing. Our challenges include: no groundwater basins to recharge; small drinking water reservoirs with a limited retention time; and public perception and education about recycled water as a drinking water source.
- Reducing current flows in the outfalls allows for the outfalls to generate revenue by using them as regional brine lines.
- Attempt to retain wet weather discharge permit.

Benefits of this approach:

- Less cost than upsizing outfalls and provides for more water within the community.
- Keeps water within the community rather than discharging to the ocean.
- Diversifies our water supply.
- Cheaper than desalination.
- Provides for a higher quality drinking water than we currently have.
- Helps our community reach goals of the state's 20/20 plan, mandating a 20% reduction in water use by the year 2020.
- Reduces the carbon footprint by reducing pumping of imported water.
- May save Escondido's Ag business if we can supply a cheaper water supply.
- An abundance of grant funding for this type of approach.

Next Steps:

- Implement recommendations from the Reverse Osmosis/ultra filtration pilot study that showed we needed to remove nutrients in order to meet Basin Plan requirements for the wet weather discharge permit and to provide a higher quality recycled water product.
- Pilot nutrient removal technology to determine needs for full scale implementation.
- Develop phased plan to build and implement IPR and other recycled water alternatives.
- Continue to work with Ag customers to provide recycled water for their irrigation.
- Continue to work with regulators and legislators to obtain approval for broader uses of recycled water including IPR.

The Utilities Director is also working with the Regional Water Quality Control Board to ensure they are supportive of this approach so that we can work in partnership with them as we move forward.

FISCAL ANALYSIS:

Approval of the conceptual plan is required because we are on the verge of spending a large amount on pilot studies and infrastructure costs. The preliminary cost to fully implement IPR is

estimated at about \$200M. However, the cost to upsize the outfalls is estimated at \$400M and that alternative provides no positive benefit to our City. We allowed for \$150M in our current rate study for this approach; the rate study looked at the 10 year CIP plan to determine bond issuance needs, debt coverage requirements, and timing of the CIP projects necessary to implement this plan. We envision that at least 50% of the needed funding will be generated through grants.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Lori Vereker", with a stylized, flowing script.

Lori Vereker  
Director of Utilities