

## CITY COUNCIL

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**Agenda Item No.: 18**

**Date: November 14, 2012**

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

**FROM:** Christopher W. McKinney, Director of Utilities

**SUBJECT:** Update and Request for Council Guidance Concerning the Water Purchase Agreement for the Carlsbad Desalination Project

**REQUEST:**

The Utilities Department requests that the City Council:

1. Accept the report from staff concerning the proposed Water Purchase Agreement between the San Diego County Water Authority (SDCWA) and Poseidon Resources for a future Carlsbad Desalination Project, and
2. Provide guidance to the City's SDCWA Board representative concerning the SDCWA Board of Directors' vote on the Purchase Agreement, which may occur as early as November 29, 2012.

**FISCAL ANALYSIS:**

If the agreement is approved and the desalination plant produces water, Escondido's payments to the SDCWA are projected to increase approximately \$2.5 million per year. These additional payments cover fixed charges such as improved standby reliability, as well as variable charges such as volumetric supply (*more details in the Background section*). Based on the Water Fund's 2012 revenue of \$38.4 million, a rate increase of approximately 6.5 percent will be required when the facility is operational as early as 2016.

**BACKGROUND:**

On September 27, 2012, the SDCWA released the proposed Water Purchase Agreement (WPA) negotiated with Poseidon Resources for the purchase of 48,000 acre-feet to 56,000 acre-feet of water produced annually from the Carlsbad Desalination Plant (the Project). The term of the WPA is 30 years. The required purchase volume represents 11 to 12 percent of the SDCWA's annual deliveries to member agencies in 2010, and by 2020 is projected to account for one-third of the region's local water supply.

The WPA transfers risk for the facility's design, construction and operation to Poseidon Resources. The agreement also includes other protections for the SDCWA, including monetary penalties to Poseidon for failure to meet supply obligations. The WPA is a necessary first step to allow Poseidon

to seek bond financing for the project. The SDCWA Board will decide whether to approve the agreement at a future Board meeting, perhaps as early as November 29, 2012.

The total cost of water from the Project to the SDCWA is projected to be approximately \$2,250 per acre-foot, which includes fixed and variable production costs, transportation costs, and the cost of inefficiencies introduced by the Project at the Twin Oaks Valley Water Treatment Plant (WTP). This price can increase due to changes in laws or regulations that increase production costs, but cumulative increases are capped at 30 percent over the term of the WPA. The price can also increase due to inflation. The WPA also gives the SDCWA authority to purchase the Project beginning in Year 10 of the agreement for an amount equal to outstanding bond debt and remaining contract cost. At the end of the agreement, the SDCWA will have the right to purchase the project for \$1.

The SDCWA member agencies have the option to purchase water directly from the Project at the same rate paid by the SDCWA. Member agencies must express their interest by November 26, 2012. The maximum volume made available to member agencies for direct purchase is 24,000 acre-feet annually, or one-half of the SDCWA's minimum annual purchase commitment. Thus, the SDCWA's minimum purchase commitment will be between 24,000 acre-feet and 48,000 acre-feet annually. *(Note: Utilities Staff recommends against direct purchase of Project Water by the City for reasons that will be explained in the Recommendation section).*

The Project will include construction of a desalination plant adjacent to the Encina Power Station in Carlsbad. All necessary environmental approvals have been secured. The Project will also include a new ten-mile pipeline to deliver water to the SDCWA's Second Aqueduct in San Marcos; improvements to the existing SDCWA pipelines between San Marcos and the Twin Oaks Valley WTP; and improvements at the Twin Oaks Valley WTP to allow for blending of the treated water from the Project with treated water from the WTP.

As a member of SDCWA, the City of Escondido would be responsible for its share of the costs of the Project if the WPA is approved by a majority of the Board. The total cost of the Project will be \$984 million (\$691 million for capital improvements, \$213 million for financing, and \$80 million for SDCWA facility improvements). Total Operation and Maintenance costs will be approximately \$50 million annually.

The City's cost impact is projected to be \$2.55 million dollars annually, +/- \$0.08 million *(the projection's uncertainty of +/- \$0.08 million is dependent on the choices made by the SDCWA Board concerning allocation of fixed costs of the Project)*. The actual impact could be as much as \$0.5 million less because Escondido's impact projection is based on the last ten years of water purchases. Conservation efforts have reduced the volume of water purchased by the City, so the volume of water purchased from 2006 to 2016 will be less than that purchased from 2001 to 2011. A likely breakdown of the projected \$2.55 million annual cost increase is: (1) \$0.9 million increase for fixed infrastructure access charges; (2) \$0.55 million for volumetric transportation charges; and (3) \$1.1 million for

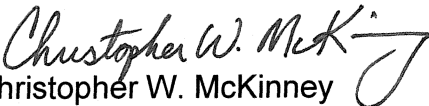
volumetric supply charges. This cost increase would be equivalent to a water rate increase of approximately 6.5 percent more than the 2012 rates. However, such an increase would not be necessary until 2016 at the earliest.

**STAFF RECOMMENDATION:**

**Staff recommends against expressing intent to purchase Project water directly from Poseidon Resources.** The City already possesses a reliable source of local water which accounts for 20 to 40 percent of its annual water consumption, depending in large part on rainfall. The cost of direct water purchase is approximately twice the cost presently paid for imported SDCWA water. Worst case projections of imported water prices, which rely primarily on the past history of increases, indicate that imported and Project water will be equivalently priced in 2022, so there would be no financial benefit to direct purchase until then. The Council recently approved design of a recycled water line to the eastern areas of the City and study of potable reuse options as part of the Utilities Department's "Conceptual Recycled Water Plan." Successful implementation of this plan will drastically reduce the City's dependence on imported water and represents a better investment of Water Fund money for the long-term financial health of the Utility. Additionally, Escondido has no direct link to the SDCWA's treated water supply because the City imports raw, i.e., untreated, water. Although we do have indirect links to the SDCWA treated water via emergency connections with neighboring agencies, the cost of using these connections for routine delivery of treated water would further increase the cost.

**Staff recommends providing guidance to the City's SDCWA Board of Directors representative that the City supports approval of the WPA.** As with any project of this magnitude, there are risks associated with moving forward and risks associated with the status quo. In the event that the Board approves the WPA, there is the possibility that rain will be plentiful and that a cost-effective, environmentally sound solution to California Delta issues will be implemented, thus making desalination less critical. In the event that the Board does not approve the WPA, there is the risk of drought or disruption to deliveries via the California Delta, thus leading to more severe curtailment of water allocations. Despite the added cost of desalination, it does represent a hedge against the risk of drought or other disruptions to the water supply and it makes our region more independent. Desalination would also provide a water supply bridge for the City until the Department's Conceptual Recycled Water Plan can be implemented, at which time the City's imported water dependence will be further diminished. Minimized imported water dependence will allow the City to avoid much of the future volumetric costs of desalination and water importation in general. If the Conceptual Recycled Water Plan cannot be fully implemented, the Project will continue to serve as a hedge against potential supply curtailment.

Respectfully submitted,

  
Christopher W. McKinney  
Director of Utilities