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CITY OF SANTA BARBARA

COUNCIL AGENDA REPORT

Agenda Item No. _____

File Code No. _____

AGENDA DATE: March 7, 2017

TO: Mayor and Councilmembers

FROM: Public Works Department, Water Resources Division

SUBJECT: Report On The Subsurface Intake And Potable Reuse Feasibility Studies

RECOMMENDATION:

That Council receive a presentation on the Subsurface Desalination Intake Initial Screening Analysis and Potable Reuse Feasibility Studies Report.

DISCUSSION:

At its meeting of September 23, 2014, Council directed staff to explore options for converting the existing offshore intake, sized and permitted to provide sufficient water for a 10,000 acre feet per year (AFY) desalination plant, to a Subsurface Seawater Intake (SSI) for the desalination plant, and evaluate opportunities for potable reuse as an alternative to desalination.

On January 30, 2015, the Regional Water Quality Control Board (RWQCB) adopted an amendment to the City's El Estero Wastewater Treatment Plant National Pollutant Discharge Elimination System Permit (NPDES Permit) that incorporated Council's direction to staff and added two milestones: submit a Feasibility Study Work Plan to the RWQCB by August 31, 2015, and report the findings of the Feasibility Study to the RWQCB at a public meeting, no later than June 30, 2017.

On May 5, 2015, Council approved a contract with Carollo Engineers, Inc. (Carollo), in the not-to-exceed amount of \$343,925 to develop the Work Plan. The Work Plan was developed with input from the public and the National Water Research Institute Technical Advisory Panel (TAP) and included a public hearing in early August. The Work Plan included initial screening criteria to evaluate the technical feasibility of the different alternatives and assign them to one of three categories; infeasible, potentially feasible (but does not meet study goals), or potentially feasible. The Work Plan was submitted to the RWQCB in August 2015, and accepted in a letter dated October 20, 2015, from RWQCB staff.

On September 22, 2015, Council approved a professional services contract amendment with Carollo in the not-to-exceed amount of \$672,042 to provide a Desalination Subsurface Intake Initial Screening Analysis and a Potable Reuse Feasibility Study.

On January 27, 2016, a public workshop was conducted by the TAP to receive comments on Carollo's SSI analysis. In accordance with the approved Work Plan, SSI alternatives were first evaluated for technical feasibility (i.e., "initial screening criteria"). The initial screening examined six SSI alternatives. Public comments were considered for incorporation into the screening analysis, as appropriate. The TAP reviewed work products (i.e., Work Plan, technical memos, reports, etc.) associated with the SSI initial screening. They also considered public comments, responses, and findings from other completed or ongoing similar efforts to develop the most informed recommendations, which can be found on the NWRI website: <http://www.nwri-usa.org/santa-barbara-panel.htm>. In summary, the TAP concurred with findings of the study that based on the criteria set forth in the RWQCB approved Work Plan, each of the six alternatives was determined to be either "not feasible" or "potentially feasible, but doesn't meet the study's objectives". Alternatives excluded from further study failed one or more of the following criteria: impacts to sensitive habitat areas, design and construction constraints, and seismic hazard/oceanographic factors. On March 22, 2016, Staff presented these findings along as part of a status report to the Council.

The public workshop for the Potable Reuse Feasibility Initial Screening Study was held on October 26, 2016. Similar to the format of the SSI study, a draft report was made available to the public and the TAP for review several weeks ahead of the meeting. Public comments were received, reviewed, and responded to by the TAP. Comments by the public and TAP were incorporated into the final report which can be found on the NWRI website: <http://www.nwri-usa.org/santa-barbara-panel.htm>. In summary, the TAP concurred with the findings of the study that although there were several alternatives for potable reuse that were technically feasible, the only viable option, direct potable reuse, lacked developed regulations that would allow it to move forward at this time.

The information from these studies will be useful in identifying additional water supply opportunities and assisting with the City's next Long Term Water Supply Plan Update.

In compliance with the RWQCB's amendment to the City's El Estero Wastewater Treatment Plant NPDES Permit, staff will give a presentation on the Subsurface Desalination Intake Initial Screening Analysis and Potable Reuse Feasibility Studies Report to the RWQCB on May 11 or 12, 2017, in San Luis Obispo. The presentation to the RWQCB is the final requirement under the amended permit conditions.

This item was presented to the Water Commission on February 16, 2017.

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SUBMITTED BY: Rebecca J. Bjork, Public Works Director

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APPROVED BY: City Administrator's Office