ITEM NO. 10

STAFF REPORT

CITY OF OCEANSIDE

DATE: April 19, 2006

TO: Honorable Mayor and City Councilmembers

FROM: Water Utilities Department

SUBJECT: **APPROVAL OF THE REMOTE OPERATED VEHICLE INSPECTION OF THE OCEANSIDE OCEAN OUTFALL LOCATED OFFSHORE NORTH OF THE MOUTH OF LOMA ALTA CREEK**

SYNOPSIS

Staff and the Utilities Commission recommend that the City Council approve the remote operated vehicle inspection of the Oceanside ocean outfall located offshore north of the mouth of Loma Alta Creek (Exhibit A); and authorize the Public Works Director to call for bids.

BACKGROUND

The City of Oceanside owns and operates the Oceanside Ocean Outfall (outfall) which begins at the La Salina Wastewater Treatment Plant site just north of the mouth of Loma Alta Creek and extends southwesterly approximately 8,850 feet offshore to a depth of approximately 100 ft. The City of Oceanside's wastewater effluent from the San Luis Rey Wastewater Treatment Plant, the La Salina Wastewater Treatment Plant, and the brine from the groundwater purification facility is discharged into the ocean through the outfall pipeline. Additionally, effluent from Fallbrook Public Utilities District and Camp Pendleton discharge into the outfall. The ocean outfall was constructed in 1972. The outfall is a 38-inch steel pipe with a 1-inch-thick cement mortar interior lining and 2.75-inch-thick cement mortar outer jacket; the outfall has a 36-inch internal diameter. The outfall terminates with a 230-foot diffuser colinear with the rest of the outfall and extends to a depth of approximately 108 feet. The diffuser has fourteen 5-inch-diameter ports and ten 4-inch-diameter ports.

ANALYSIS

The hydraulic capacity of the ocean outfall has become impaired based on observed pumping pressures within the outfall. Sedimentation in the diffuser section of the outfall was considered as a possible cause of the reduced hydraulic capacity of the outfall but it has been determined that it is not. Although impaired and possibly inadequate for future expanded flow rates, the hydraulic capacity of the outfall is currently sufficient for existing flow rates.

To determine the cause of the reduced hydraulic capacity of the ocean outfall the City will have the outfall pipeline entered through an underwater outfall manhole by a remote operated vehicle (ROV). The ROV will enter the outfall manhole 7,300 feet offshore at approximately 90-foot depth. The inspection will be scheduled for May or June, after the threat of high storm flows. There will be two phases to the inspection; the first will take 2 hours and be a visual inspection of the manhole, the second will last no more than 24 hours and be the ROV inspection.

During the inspection, flows of non-disinfected secondary effluent from the San Luis Rey and La Salina wastewater treatment plants will not be discharged through the outfall and will instead be stored in storage ponds with two-day storage capacity at the San Luis Rey plant. Flows of non-disinfected secondary effluent from Camp Pendleton wastewater treatment facilities will be similarly stored in ponds at Camp Pendleton.

Flows of disinfected tertiary effluent from Fallbrook Public Utility District and flows of waste brine from the City's Brackish Groundwater Desalination Facility will continue to be discharged through the ocean outfall. These continued flows will aid the ROV in maneuvering through the outfall during the inspection.

FISCAL IMPACT

The Integrated Water Utilities Master Plan Budget for 2005-2006 is $1,342,630; the master plan cost is $1,185,571 leaving a balance of $157,059. The engineer cost-estimate for this project is $125,000, therefore adequate funds are available.

INSURANCE REQUIREMENTS

Does not apply.

COMMISSION OR COMMITTEE REPORT

The Utilities Commission reviewed and approved the award of this contract at its meeting on March 21, 2006.

CITY ATTORNEY'S ANALYSIS

The referenced documents have been reviewed by the City Attorney and approved as to form.

RECOMMENDATIONS

Staff and the Utilities Commission recommend that the City Council approve the remote operated vehicle inspection of the Oceanside ocean outfall located offshore north of the mouth of Loma Alta Creek (Exhibit A); and authorize the Public Works Director to call for bids.

PREPARED BY:

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Administration Manager

SUBMITTED BY:

Steven R. Jepsen
City Manager

REVIEWED BY:

Michelle Skaggs Lawrence, Assistant to the City Manager

Barry E. Martin, Water Utilities Director

Exhibit A - Site map

Oceanside Ocean Outfall
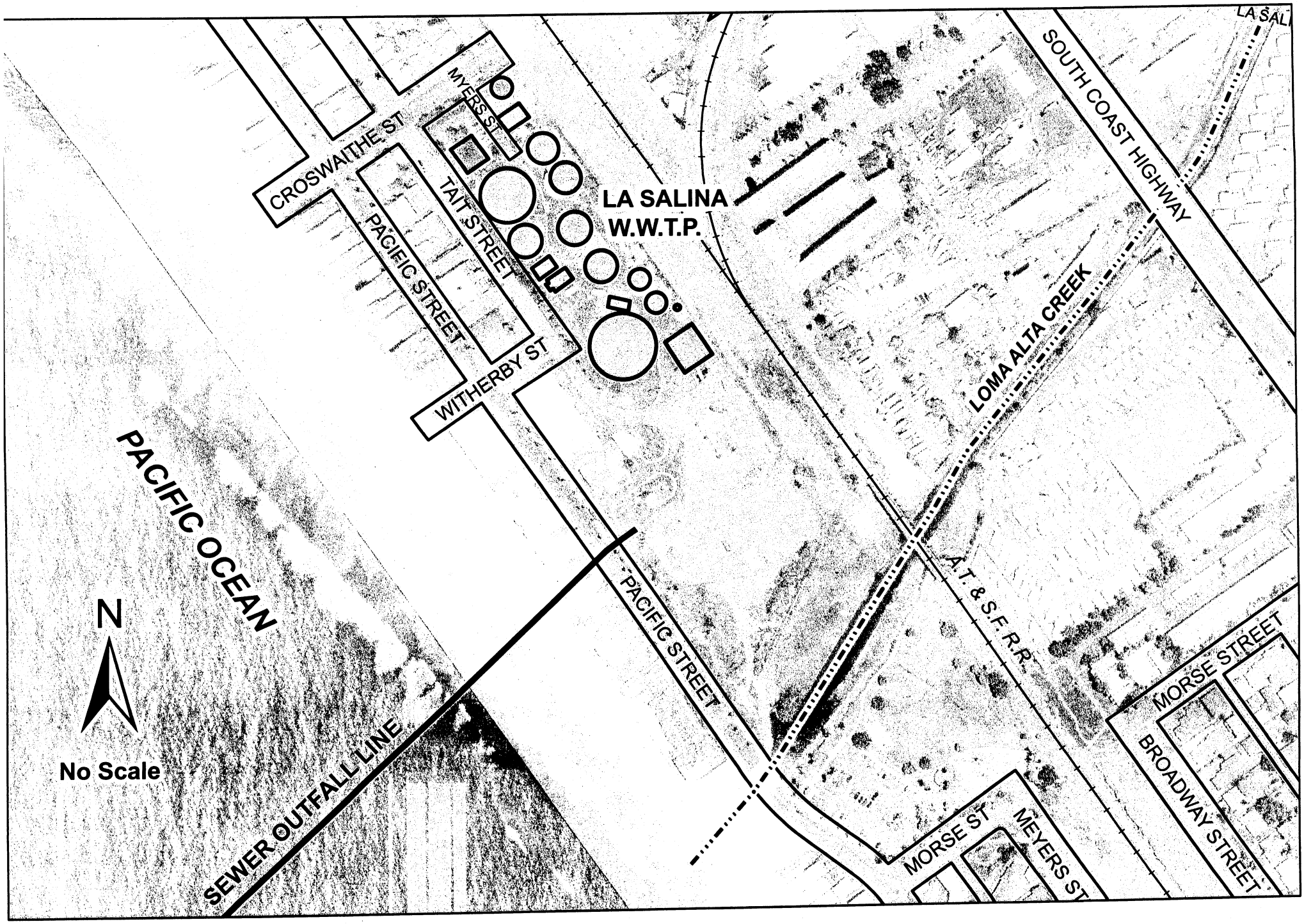
EXHIBIT A