

CITY OF SANTA ROSA
BOARD OF PUBLIC UTILITIES

TO: BOARD OF PUBLIC UTILITIES

FROM: JASON ROBERTS, PE, SUPERVISING ENGINEER
CAPITAL PROJECTS ENGINEERING

SUBJECT: APPROVAL OF SECOND AMENDED AND RESTATED
MEMORANDUM OF UNDERSTANDING FOR BEST AND FINAL
PRICE OF ULTRAVIOLET DISINFECTION EQUIPMENT –
C00284 LAGUNA TREATMENT PLANT DISINFECTION
IMPROVEMENTS PROJECT

AGENDA ACTION: RESOLUTION

RECOMMENDATION

It is recommended by the Transportation and Public Works Department and the Water Department that the Board of Public Utilities, by resolution, approve a Second Amended and Restated Memorandum of Understanding with De Nora UV Technologies, LLC, of Coraopolis, PA (De Nora), incorporating De Nora's Best and Final equipment purchase price offer of \$5,923,491.28.

EXECUTIVE SUMMARY

This resolution will approve a Second Amended and Restated Memorandum of Understanding (MOU) with De Nora and guarantee a Best and Final purchase price of \$5,923,491.28 for acquisition of the Ultraviolet Light (UV) disinfection equipment, should the City award a contract for replacement of the existing UV disinfection system at the Laguna Treatment Plant. The intent of this Second Amended and Restated MOU is to formally incorporate the Supplier's Best and Final equipment price, which will be included in the installation bid documents.

BACKGROUND

Ultraviolet Light (UV) is the primary disinfection process for the Laguna Treatment Plant (LTP). In 2012, the Division of Drinking Water (DDW) re-evaluated and subsequently de-rated the disinfection system capacity, resulting in deficiency under certain wet weather flow and/or low UV transmittance conditions. Additionally, the existing UV equipment was commissioned in 1998 and is at the end of its useful life. These

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conditions triggered the need to evaluate disinfection equipment options to ensure that LTP has adequate disinfection capacity of up to 67 million gallons per day. Through various analyses, the City determined that replacing the existing UV system with a new UV system is the most feasible approach to address the capacity and reliability deficiencies.

In January 2016, the City initiated design for replacing the existing UV system. There are several UV equipment manufacturers, each with different configurations and layouts. This makes it impractical to design the new UV system without first knowing which supplier's equipment will be used in the layout. Therefore, the most efficient approach was to undergo a formal Request for Proposal (RFP) process to pre-select the UV equipment and then use the selected supplier's equipment parameters to complete the design.

In September 2016, the City publicly issued a formal RFP that established the pre-selection process. A selection committee comprised of City staff reviewed all qualified proposals and identified the most qualified supplier: Calgon Carbon UV Technologies, LLC (Calgon Carbon) of Coraopolis, PA. City staff subsequently executed an MOU to establish the duties of Calgon Carbon as the Supplier, terms and conditions, and pricing of the UV equipment (2016 MOU). This 2016 MOU also established that a \$70,000 Professional Services Agreement (PSA) would be executed for the Supplier to provide support services and shop drawings during design. The 2016 MOU established an equipment price of \$4,656,500 and guaranteed that price for 18 months.

In 2017, the project went on hold to perform a value engineering (VE) study. The purpose of the VE study was to provide an independent assessment of disinfection project alternatives to the current project. The assessment included a review of the project purpose, design criteria, UV system capacity, capabilities, limitations, and opportunities. There was a total of six (6) disinfection system alternatives including treatment by ultraviolet light, sodium hypochlorite, chloramines, or a combination thereof. The final VE study was issued October 2017.

Staff reviewed the VE study and performed a subsequent disinfection treatment study - a bench-scale chlorine contact time study, which was completed April 2018. After these careful analyses, in October 2018, City staff decided to continue the design for a new UV treatment system. The VE study and subsequent analyses confirmed that the City's preferred alternative of replacing the UV system addressed the LTP's disinfection capacity and reliability issues in the most technically and economically feasible manner.

The City elected not to extend the MOU with Calgon Carbon while these studies were being performed because it was unknown what disinfection process would be recommended by the VE study. As a result, the MOU's pricing terms subsequently expired, and the project scope changed based on the VE study, thereby requiring a new

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MOU and PSA be established to document the new equipment pricing and complete the design work.

In 2019, the project reinitiated design and Calgon Carbon was reengaged by the City to revise the equipment purchase price and establish a new pricing guarantee. The City and Calgon Carbon subsequently executed an Amended and Restated MOU that established the duties of the Supplier, terms and conditions, and revised pricing of the UV equipment (2020 MOU). This 2020 MOU established a new equipment price of \$5,634,700 and guaranteed that price for 22 months. This represented a price escalation of \$978,200. The 2020 MOU also required that the City and Supplier negotiate a Best and Final equipment purchase price and to amend the 2020 MOU to incorporate that final price.

PRIOR BOARD OF PUBLIC UTILITIES REVIEW

On January 7, 2016, the Board approved a Project Work Order under the Master Professional Services Agreement with Carollo Engineers, Inc., to provide Professional Engineering Services for the LTP Disinfection Improvements project.

On November 17, 2016, the Board approved the original Memorandum of Understanding with Calgon Carbon, guaranteeing an equipment purchase price of \$4,656,500.00 for a period of 18 months.

On August 16, 2018, staff conducted a staff briefing with the Board to provide an update on the Laguna Treatment Plant Disinfection Improvements project. The staff briefing covered the status of the project, associated activities, and anticipated schedules.

On November 15, 2018, staff conducted a staff briefing with the Board to provide an update on the LTP Disinfection Improvements Project. The staff briefing covered the status of the project, associated activities, and anticipated schedules.

On July 18, 2019, the Board conducted a study session for an update to the LTP Disinfection Improvements project. Staff reviewed the history of the project, the current status of the project, and the anticipated future activities and schedules.

On August 15, 2019, the Board approved Project Work Order Amendment No. 1 under the Master Professional Services Agreement with Carollo Engineers, Inc., to provide professional engineering services for the LTP Disinfection Improvements project.

On August 6, 2020, the Board approved an Amended and Restated Memorandum of Understanding with Calgon Carbon, guaranteeing an equipment purchase price of \$5,634,700.00 for a period of 22 months, and approved a Professional Services

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Agreement with Calgon Carbon for design support services in an amount not to exceed \$86,000.00.

On November 19, 2020, the Board took the following actions: 1) found and determined that the November 2020 Addendum to the Incremental Recycled Water Program Environmental Impact Report (IRWP Program EIR) was the appropriate CEQA documentation for the project, 2) approved the project, 3) approved Amendment No. 2 to Project Work Order No. A010014-2011-09 with Carollo Engineers to provide Professional Engineering Services During Construction for the project in the amount of \$1,981,132, with a \$150,000 contingency for a total Amendment No. 2 amount of \$2,131,132, and a total contract amount not to exceed \$6,519,386, and 4) approved a Professional Services Agreement with Psomas to provide construction management and inspection services for the Laguna Treatment Plant Disinfection Improvements Project in the amount of \$4,077,950 with a \$393,796 contingency for a total contract amount not to exceed \$4,471,746.

On May 20, 2021, the Board approved a sole source specification of various electrical and mechanical equipment for the project.

On September 16, 2021, the Board approved Amendment No. 3 to Project Work Order No. A010012-2011-09 with Carollo Engineers for additional design services and supplier coordination in the amount of \$750,000 for a total contract amount of \$7,269,386.

ANALYSIS

The 2020 MOU was executed on August 10, 2020. The 2020 MOU included an equipment purchase price of \$5,634,700 but allowed for the negotiation of a Best and Final equipment purchase price.

De Nora UV Technologies (previously Calgon Carbon UV Technologies) and the City have successfully negotiated a Best and Final Offer for UV equipment which includes a price escalation of \$288,791.28 to account for pandemic-driven increases in the price of steel, for a total equipment price of \$5,923,491.28.

This Board action will approve a Second Amended and Restated MOU that establishes a Best and Final offer of \$5,923,491.28. The purpose of the Best and Final offer is to allow for equipment price adjustments resulting from final design changes and pandemic-driven increases in the price of steel.

In addition to negotiating a reduction in price escalation in the 2021 MOU, staff also negotiated provisions into the 2021 MOU that would allow the City to reclaim any savings related to steel prices that develop between now and the time of equipment

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order, and that clarify that future supply chain issues do not justify additional price escalation. In addition, as part of the revised 2021 MOU, the City has agreed to several additional changes to the terms of the 2021 MOU, including revisions to clarify the percentages and milestones upon which the contractor will make payments for the equipment, as well as the addition of an aggregate liability cap (equal to insurance proceeds plus two times the purchase price of the equipment) and revisions to the warranty provision that limit coverage where there is adverse material modifications, storage and/or use of the equipment.

City staff will specify De Nora's equipment in a forthcoming construction Contract, which will require the contractor to both purchase and install this equipment at the price set forth in the MOU. The Laguna Treatment Plant Disinfection Improvements Project is anticipated to be advertised for bidding early January 2022.

FISCAL IMPACT

Funds for the purchase of the equipment are not required at this time.

The construction project is estimated to cost \$50M, which includes the UV equipment costs and installation. Funding has been established through a combination of budget transfers from existing appropriated budgets, new budget appropriations from the 1631 Subregional Wastewater Facilities Fund, and a Series 2020 Bond Issuance.

ENVIRONMENTAL IMPACT

For the UV equipment pre-selection process and approval of the Second Amendment to the MOU, no action is required under the California Environmental Quality Act (CEQA), because it is not a project which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, pursuant to CEQA Guideline Section 15378. An environmental analysis for the UV Disinfection Project pursuant to CEQA has been completed.

BOARD/COMMISSION/COMMITTEE REVIEW AND RECOMMENDATIONS

On July 28, 2020, the Contract Review Subcommittee reviewed and recommended approval of the Amended and Restated MOU (2020 MOU).

ATTACHMENTS

- Resolution

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